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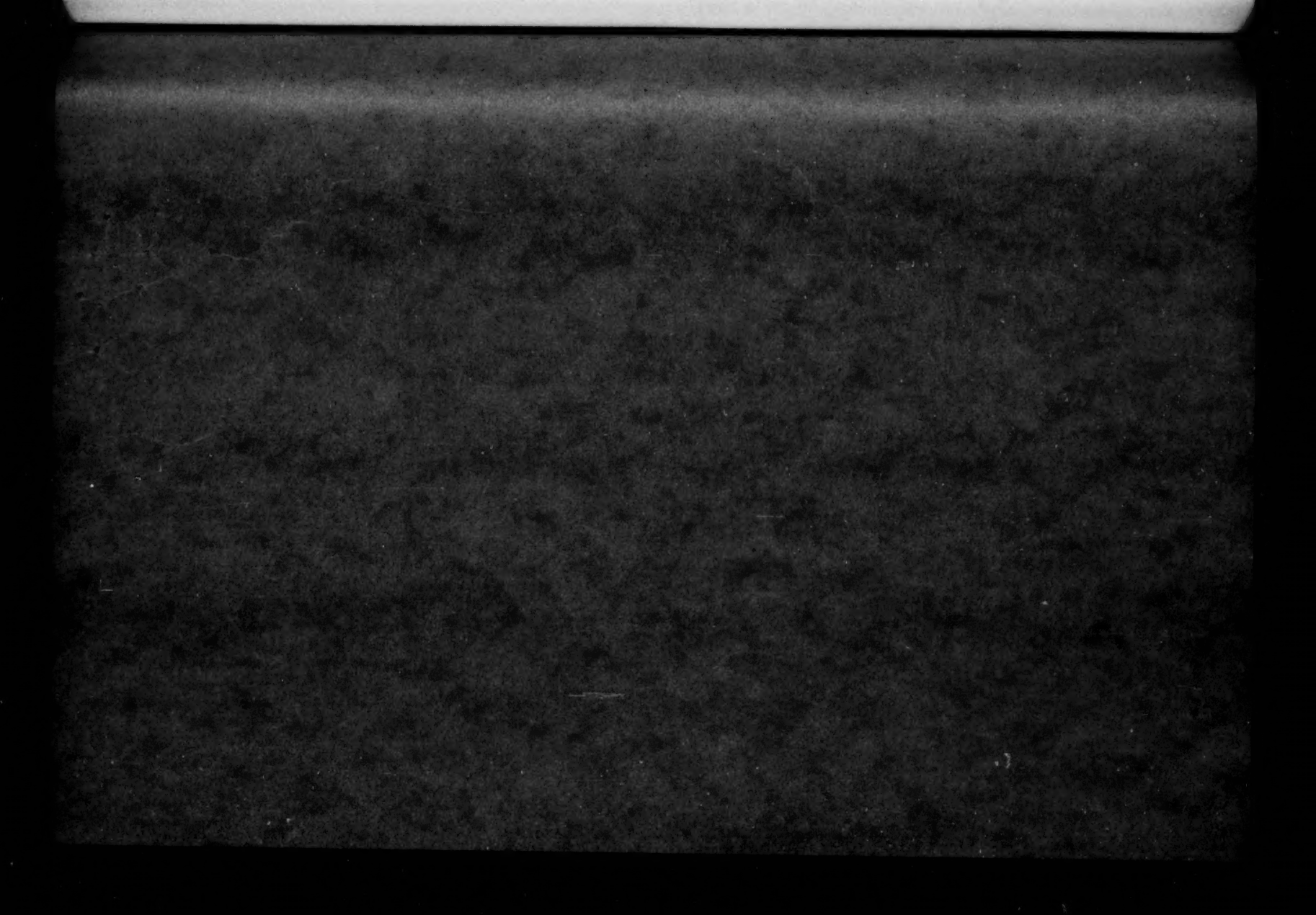
The APPRAISAL JOURNAL

Published Quarterly by the
AMERICAN INSTITUTE OF REAL ESTATE APPRAISERS
OF THE NATIONAL ASSOCIATION OF REAL ESTATE BOARDS

- The Appraisal of Gasoline Service-Station Properties
- The Expert Witness
- Why Does "Valuable" Land Lie Idle?
- Gross Earnings as a Guide in Farm Appraisals
- Capitalization Rates
- Trends Affecting Commercial and Industrial Properties
- Taxes, Assessments, and Appraisals
- The Economic Position of Real Estate
- The Marshall Field Transaction
- Bonbright's "Valuation of Property"

AMERICAN INSTITUTE OF REAL ESTATE APPRAISERS

OL. VII, No. 3
ULY 1939



The APPRAISAL JOURNAL

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Volume VII JULY 1939 Number 3

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This publication is provided as a medium for the expression of individual opinion concerning appraisal practice and procedure and topics allied thereto. The articles printed herein do not necessarily represent the endorsement of the Institute or of the majority of the members excepting as such statements may be designated as approved by the Governing Council. The editors exercise only a general supervision of the material and assume no responsibility for the opinions expressed by the contributors.

Published quarterly by the American Institute of Real Estate Appraisers of the National Association of Real Estate Boards at 22 West Monroe Street, Chicago, Illinois.

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Entered as second class matter April 29, 1939, at the post office at Chicago, Illinois, under the Act of March 3, 1879. Subscription rates: $5.00 a year; $1.25 a copy. Remittances may be made by personal checks, drafts, or post office or express money orders, payable to the American Institute of Real Estate Appraisers, Chicago, Illinois. Printed in the United States of America.

AUTHORS IN THIS ISSUE

GRAHAM ALDIS, M.A.I., Chicago, Illinois.
Partner, Aldis & Company; former Vice President of the National Association of Building Owners and Managers.

CHARLES F. CURRY, M.A.I., Kansas City, Missouri.
President, Charles F. Curry Real Estate Company; Past President, Real Estate Board of Kansas City.

WILLIAM H. DOUGHTY, Chicago, Illinois.
Partner, Aldis & Company.

SPENCER HEATH, Elkridge, Maryland.
Research engineer; attorney; author and lecturer on social sciences.

BERT W. LEVIT, San Francisco, California.
Attorney, Long & Levit; former Special Assistant to the United States Attorney General at Washington, D. C.

VICTOR P. MORRIS, Eugene, Oregon.
Dean, School of Business Administration, and Professor of Economics, University of Oregon.

FAY A. NORTON, New York, New York.
Associated with the Real Estate Division, Sales Department, The Texas Company.

GEORGE L. SCHMUTZ, M.A.I., Los Angeles, California.
Valuation Engineer; member of the Governing Council, American Institute of Real Estate Appraisers, and Dean and member of the Institute's faculty.

GEORGE C. SMITH, St. Louis, Missouri.
Assistant to the President, Missouri-Kansas-Texas Lines, in charge of Industrial Development Department; President, Industrial Property Council, National Association of Real Estate Boards.

CHARLES L. STEWART, Urbana, Illinois.
Chief, Land Economics, and Professor of Agricultural Economics, University of Illinois.

· With the Editors ·

ROBBING PETER TO PAY PAUL

FROM all parts of the country we hear of the rapid increase in home building. On the surface this appears to be good news indeed. Anything that points upward on the economic chart today is *news*, and our daily papers and trade journals are making the most of it. We are led to believe that everything looks rosy once more for "the great American family." Well, maybe it does, but there is another side of the story that has been accorded little publicity. It is not to be found on the first page of your newspaper; it is buried in the want-ad section under the headings of "For Rent" or "To Let."

The cold fact is that the American family is *on the move* again, and this time into its own home! In the meantime, our apartment-house occupancy is declining steadily, along with rentals, returns, and presumably property values in the older and more highly developed residential sections. Whether our gain is going to exceed our loss is still problematical. It must depend upon how far public psychology will go in creating general business. The mere moving of the population by the investment of more borrowed capital is not going to do the "trick" if in turn we lose the capital formerly invested. Certainly no *wealth* will be added in the process.

What is the cause of this movement? The answer is simple—easy money at low interest rates and no particular strings attached that might bring uneasiness for the future. The American tradition has always been toward home ownership. The swing away since the World War was largely for economic reasons, but the idea is still firmly rooted in the inner consciousness of almost every American-born citizen and enthusiastically acquired by the adopted sons who obtain their citizenship by declaration. Hence, the advantages of home ownership need no efforts of salesmanship in the abstract—it is now and has always been a question of *ability to pay*.

Consider an average middle-class family of four—the parents and two growing children just about ready for school. The "honeymoon flat" of a few years ago is now a modest apartment with a separate bedroom for the children, and the monthly payment to the landlord is, let us say, $45, $50, or $55; the actual rent does not really affect the principle of the thing. Past frugality, in spite of the rigors of the depression, has made possible the accumulation of a few hundred dollars of savings to "tide over if Father loses his job." The "home bee" has been buzzing around for a long time, but it seemed to be hovering over sterile ground. And now comes the Federal housing program — guaranteed loans for home building, 4 per cent money, small down payments, and amortization with a small "a." Why wait longer? Certainly it would be foolish to continue renting when a down payment of $300 or $500 plus $40 a month will not only provide that home, but ultimately pay for it. What matter if Junior may have children of his own before it is paid for? With the monthly payments actually less than rent, there is everything to gain and nothing to lose. If the house is *never* paid for, the old folks can let it go in twenty years when there

is no longer any real use for it anyway.

Yes, the answer to the upswing in home building is easy, even as we realize at the same time that the "costs" of construction are excessive and far above the economic justification for investment of private capital. In the meantime, apartments already constructed are facing increasing difficulties, just when it began to appear that they were again assuming some measure of stability. Starting in 1935 and reaching a culmination in 1938, apartment receipts and occupancy in most of our larger cities were slowly but steadily increasing. The turning point came really a few months earlier, but was not generally noticeable until the beginning of the current year. Coupled with declining income is the higher and higher operating costs brought about by increasing wage scales, employees' benefits of various kinds, and rising taxes, until the profit margin is rapidly disappearing entirely.

This situation may be attributed, of course, to the various phases of "planned economy" sponsored by the present administration under the New Deal. It is beginning to look as though permanent changes are to be brought about that may influence not only our future social structure, but also our entire national economy. With the continual lowering of interest rates it is obvious that equity capital must be satisfied with lower returns. This means that the values of income properties will not fall in direct proportion with decreases in occupancy and net income, but rather that the net incomes to be realized above operating costs will be capitalized at lower and lower rates in obtaining estimates of capital value. When and as these rates are low enough, then capital may again be interested in the construction of the larger income properties.

Truly the virtual government subsidization of home building is working a severe hardship on improved real estate. It looks a lot like "robbing Peter to pay Paul." Will the benefits for one part of our population offset the losses of the other and leave a margin in favor of our society as a whole? Let us hope so.

•

STRAIGHT THINKING

THE appraiser cannot let someone else do his thinking for him." This statement appeared in the article entitled "Highest-Best Use," by Morris B. Ashton, M.A.I., in the JOURNAL of January, 1939. It states a truth which is worthy of additional emphasis.

It might be said that the essence of the appraisal process is straight thinking—thinking that is both honest and logical. The nature of the problem of valuation is such that crooked thinking and illogical thinking may go unchallenged for a time—but not forever.

The appraiser must ascertain what other people think. He must have an open mind at all times and be willing to give consideration to the opinions expressed by others. However, he must always be on guard lest he adopt unquestioningly the thoughts of other people as his own, and lest he accept blindly the opinions and conclusions of others. Furthermore, he must not let someone else control his thinking and thereby dictate his conclusion when, for example, he is retained to "find" a valuation desired by his client. If he is not constantly alert to discover unsoundness in his thinking and firm in his resolve to be honest and straightforward, he may unknowingly get off the path of straight thinking or be led off it by the lure of a fee.

An illustration showing why the appraiser must not allow others to do his thinking for him and why he himself must honestly discharge the responsibility he assumes when he accepts an assignment was presented by Patrick H. Clark, M.A.I., in the April 1939 JOURNAL (page 150), in

which he said: "Another incident was noted wherein an application for a sizable loan was investigated by a member of the salaried staff of a large insurance company who had never before seen the town in which the property was located except through a car window. The investigation lasted three-quarters of an hour; three people who were not competent to pass judgment on the project were interviewed. A hasty negative report was submitted, and the company lost a valuable investment to a rival institution which took pains to have a thorough investigation made by a trained man who knew the territory." In this case, as in the other one, the appraiser made some effort to ascertain the opinions and thoughts of other people presumed to know something about the property under consideration, but in each instance the appraiser's procedure was characterized by the unforgivable fault of letting other people do this thinking for him and of not making an honest effort to lay an adequate basis for a well-founded conclusion—the thinking was not straight.

It is sometimes said: "A man's opinion is no better than his information." The thought might better be expressed: "The quality of a man's opinion can be no better than the quality and extent of his information, the quality of his reasoning, and the moral quality of his thinking."

Obtain information and opinions from others, but do your own thinking and do it logically and honestly—be a straight thinker first, last, and always.

•

THE NEW F. H. A. ACT

IT BEGINS to appear that the Federal Housing Administration has become aware of the abuse of confidence, not to say downright dishonesty, which has been "put over" on it in the immediate past. The recently passed amendments to the Act tighten up the previous law in certain badly needed directions.

The Act now provides that loans "shall not in any event exceed the amount which the Administrator estimates will be the cost of the completed physical improvements on the property or project, exclusive of the following: public utilities and streets; taxes, interest, and insurance during construction; organization and legal expenses; and miscellaneous charges during or incidental to construction."

This "catchall" of indirect charges, including preparation of the land for use, is such a highly speculative figure, and may vary so much between the date of planning and the completed project, that it doubtless has been used in many cases to accomplish ends far from praiseworthy. Criticism appearing in the public press with respect to certain projects only points the moral to this story. Unscrupulous promoters, plus political influence, plus cheating contractors, never yet brought into existence a sound project at a reasonable cost and with a real money investment by the promoters.

•

THE PARKING LOT

ONE of the toughest problems faced by real estate appraisers is the valuation of vacant urban land, formerly in full production but now stripped of improvements and used, if at all, for filling stations and parking lots. All value rests upon futures, and a sound appraisal today must be based upon a reasonable expectancy of ultimate use. It is not sufficient to accept a certain *utility* for a parcel of land simply because other similar land is improved and devoted to such purposes; there is the quantitative factor to be considered.

It is an incongruous situation. With the rising burden of taxation, accompanied by declining rental income, landowners are being compelled to raze improvements that might formerly have been utilized as

"taxpayers" in order actually to save taxes. The natural and, in fact, the only immediate use that can be found for the land is as parking lots and related minor enterprises that are assumed to be of temporary nature. But how long is "temporary"?

A vacant site, let us say, lies between two large, up-to-date office buildings. It is now under month-to-month lease as a parking lot. The rental does not begin to pay the taxes on the land. What is the "highest and best use" for the land, and how long will it be before such use can be economically realized by the construction of a proper improvement? These are questions the appraiser must answer before he can make an intelligent valuation.

Let us further assume that the adjoining buildings are doing well enough and have a small but seemingly assured net income above all operating expense. Such income, however, is not sufficient to produce a return upon the capital required to construct a similar improvement today. Furthermore, if an additional competing structure were to be erected, the diffusion of tenancy among the three buildings would further decrease the returns from the existing improvements. Under such circumstances, is the appraiser justified in using the operating results of these adjoining properties as evidence of land value? On the other hand, is it proper for him to adopt the existing meager income derived as a parking lot and, on the strength of the net loss reflected after taxes, say that the land has no value? Obviously, neither approach appears to be supported by clear reasoning or common sense.

It is becoming increasingly evident that this problem is deep-seated and may well result in an entire change in the concept of value of urban lands. With the constantly accelerating diffusion—if not, in fact, the migration of business to outlying communities — and the deceleration of population growth, it may well be that we *never* are going to need these lands again—that is, for any purpose that may approximate the full production for which they have heretofore been suited. But we shall no doubt continue to need parking lots.

Perhaps the ultimate solution will be for the office buildings on each site to absorb the vacant lot, to be used thereafter for the benefit of the tenants. The land value assignable to the two lots now improved would then be spread to embrace the third, now vacant. This, of course, would require the lowering of the tax base proportionately—and it would be hard on the owner of the vacant land. From a practical standpoint this could be accomplished by only one process: the taking over of the land by public authority in lieu of the taxes that cannot continue to be paid indefinitely by the owner and the transfer thereafter to private interests at a nominal price. The alternative would be a gradual evolution to public ownership of real estate. God forbid!

We raise this appraisal problem, but do not have the temerity to advise the appraiser how to handle it in the case of a particular engagement. It would be easy to point out all the different things he should "take into consideration" in his valuation. We have a "hunch," however, that he will fall back on the same old method of checking "sales," deducting for improvements, and thus arrive at "land value," and that his final answer will rest on "informed local opinion." Maybe he will be right, but we doubt it. Anyhow, he is welcome to the job. We don't want it!

The
APPRAISAL JOURNAL

Volume VII JULY 1939 Number 3

THE APPRAISAL OF GASOLINE SERVICE-STATION PROPERTIES

FAY A. NORTON*

THE "service station," as we know it at the present time, has attained a distinctive economic status because of the automobile. The development of the automobile to its present important place in contemporary life has been possible because of the development of the internal combustion engine; and the development of the internal combustion engine has been made possible, in a large measure, by developments in the petroleum industry.

Marco Polo seems to have appraised the first "oil station." He brought back from his travels accounts of "a fountain from which oil springs in great abundance," and continued, "this oil is not good to use with food, but it is good to burn."

The present-day petroleum industry began some seventy-five years ago with the development of "coal oil" or kerosene. It has grown in that short span of time to be one of the major industries of the world, due principally to the development of gasoline. From the days of the "horseless carriage" to the present streamlined automobile is just about four decades.

GASOLINE CONSUMPTION

The statistics are interesting. In 1896, when Grover Cleveland was president, there were four automobiles in the United States. About five years later gasoline became a factor in the petroleum industry; it was dispensed from barrels or cans, usually at the blacksmith shop, where automobile repairs generally were made, and also at the corner store. The first gasoline pumps were installed about 1902, in front of grocery, hardware, or general stores, and also at "garages," which had just made their appearance.

By 1907 there were 142,000 automobiles in the United States. This then incredible number of automobiles seemed to justify a special type of facilities to serve them. As a result, in certain areas property was developed for "filling stations," which supplied gasoline and also oil and grease. The autoist usually put the latter into or on his "machine" himself.

By 1910 the registration of automobiles in the United States was 468,500, and the yearly consumption of gasoline had reached 596,400,000 gallons. By 1915 the registration of automobiles was 2,445,666, and the consumption of gasoline was 1,583,400,000 gallons. By 1920 the number of motor vehicles had mounted to 9,231,941, and approximately 15,000 service stations had been constructed. By 1921 the gasoline consumption was 4,900,000,000 gallons.

Increases continued, and for 1937 we have the following stupendous figures:

Registered motor vehicles (about 85 per cent passenger cars)	29,600,000
Gasoline consumption (gallons)	21,850,000,000
Approximate number of outlets selling gasoline	380,000

*Mr. Norton, the author of this article, is in the Real Estate Division of The Texas Company. In addition to a broad general real estate experience, he has had experience with service-station properties for a period of several years over a considerable portion of the country. The statements, opinions, and procedures contained in the article are the personal statements, opinions, and procedures of Mr. Norton; and no responsibility for them is to be attributed to or is assumed by The Texas Company.—Editors.

Although nearly the entire consumption of gasoline may be credited to the automobile, it is also consumed by tractors, motor boats, stationary engines, industry, and other similar uses. Statisticians have determined the *average* consumption of gasoline per car per year as follows: in 1921, 400 gallons per car per year; in 1937, due to better highways and increased mileage per car, over 600 gallons per car per year.

According to statistics issued by the American Petroleum Institute, the *average* retail price per gallon of gasoline in fifty representative cities (including at least one city in each state) is as follows:

Year	Average Service Station Price Excluding Tax	Average State and Federal Gasoline Tax
1920	29.74 cents	0.09 cents
1921	26.11	0.20
1922	24.83	0.38
1923	21.06	0.91
1924	19.47	1.48
1925	20.09	2.11
1926	20.97	2.41
1927	18.29	2.80
1928	17.90	3.04
1929	17.92	3.50
1930	16.17	3.78
1931	13.00	4.00
1932	13.30	4.63
1933	12.41	5.42
1934	13.64	5.20
1935	13.55	5.29
1936	14.10	5.35
1937	14.58	5.40
1938	14.06	5.44

Some idea of the factors which produce value in service-station property can be obtained from these statistics. Interesting averages and trends may also be calculated and deduced by those who are statistically minded. Extreme caution should be exercised, however, if this is done as a basis of opinion regarding any *individual* property, for averages are misleading on this type of property. For example, from the above figures we find that in 1937 the average number of motor vehicles per outlet was 77.9. This figure, while of general interest, has only a remote influence, if any, on the value of an individual property. The fact, however, that there were 615 motor vehicles per gasoline outlet in 1920 and 77.9 per outlet in 1937 definitely indicates a general trend toward the point at which supply and demand are about equalized. To offset this trend, there is the increased consumption per vehicle.

The retail price of gasoline has a decided influence on the value of service-station property. It is an old axiom that property is worth what it will earn. Certainly earnings are not as high proportionately now, with an average retail price of 14.06 cents per gallon of gasoline (exclusive of tax), as they were when the average retail price was 29.74 cents per gallon (exclusive of tax). To offset this trend, there is increased consumption and there is more efficient operation, all the way from the oil well to the gasoline tank on the automobile.

With this general background, consider each location strictly on its individual merits. Consider the economic necessity of the individual service station; consider the service which the property will render when properly developed—or is it properly developed if it is now improved with service-station facilities? Consider all pertinent data available and arrive at an opinion of the *individual* property.

It is the writer's belief that for service-station property there can be no definite formula developed to arrive at a mathematically correct answer if the answer is to be the market value of the particular service station. Any appraisal is, in the final analysis, an opinion or estimate; and the reliability of the appraisal is therefore primarily dependent on the reliability, the knowledge, and the judgment of the appraiser.

Various rules have been developed through experience, various ideas have been pursued, various data have been obtained, investigated, and analyzed, and

various procedures have been followed. The principal use of any or all of these is to aid the judgment of the appraiser. The use of rules and formulae has been ably summarized by George L. Schmutz, M.A.I., in the preface of his *Condemnation Appraiser's Handbook*,[1] as follows:

> "No man can apply any rule intelligently until he understands when to disregard it—until he understands that when the reason for the rule ceases, the rule itself fails."

In other words, each problem of service-station appraising is individual even if one service station is in many respects physically similar to another, even though it may present similar aspects as to location, neighborhood, traffic, management, product acceptance, and so on to an impressive list.

METHODS OF ACQUIRING SERVICE-STATION PROPERTIES

This discussion has to do principally with the value of a service station to the usual buyer, who, in most cases is one of the major oil companies. The word buyer is not used literally, for it is assumed that the property is to be acquired by the oil company by any one of the following typical methods:

1. Lease a complete (or complete except certain items of equipment) service station which has been constructed by the lessor, either according to the oil company's plans and specifications or other plans and specifications.
2. Lease the land only, the oil company to construct the improvements.
3. The oil company to acquire the fee and to construct the improvements.

This is the subject which is the least understood by Realtors and the real estate-minded public—why does any oil company acquire any particular location at any given price?

Since the inception of the petroleum industry as we know it today, experience has proved the reliability of the major oil company lease. Therefore, in appraising a service-station property which is, or is to be, covered by such a lease, the writer believes that the following process will give the bottom limit of value:

> *The present worth of the rentals due under the lease, considering a reasonable interest rate,* plus *the reversionary value of the land.*

To this may be added the other proper items of value—for example, the depreciated value of the building, as of the end of the lease reverted to the date of appraisal, *if* the service-station building is not too special in type (as used by one individual oil company or otherwise designed so as to be limited in use to only one lessee). For practical purposes, based upon past experience, a service-station building will have an economic life of not to exceed fifteen years, perhaps longer if exceptional in design and in construction.

TYPES OF SERVICE STATIONS

Service stations may be grouped into five broad classes:

1. The neighborhood location.
2. The metropolitan (or downtown) location.
3. The commercial-business location.
4. The highway location.
5. The mixed-use location.

Of course, there are many cases of overlapping classification, but the above grouping will be found convenient in analyzing service-station property.

The neighborhood location: The neighborhood type of service station is usually in a suburban business zone which serves a residential community. The service station is usually the highest and best use of the land. It performs a needed service to the community, and, while it does not produce the highest volume, it is probably the most generally satisfactory type of service station to the motoring public and to the oil companies. It should be on the traffic artery serving the area, preferably on the side of the business zone toward the main business section of the city.

[1] Schmutz, George L., *Condemnation Appraiser's Handbook* (New York: Prentice-Hall, Inc., 1938), p.v.

If the traffic artery mentioned also happens to be a marked state or national highway, this obviously is an additional advantage. In towns of about 10,000 population the service station on a downtown corner should fit into this classification.

Investigation shows that motorists usually purchase petroleum products and services for their automobiles near either end of their usual routes of travel. All things being equal, they will make purchases near their residences, where they know the manager of the service station and the manager knows them and their automobiles. When Father starts out with "the old bus" to go to the office, to make a business call, or to take the family on a trip, it is a nine-to-one chance that the first thing he does is to look at the gasoline gauge, and, if it is low, he stops at Jim's or Bill's service station in his neighborhood to purchase the necessary gasoline, to have the oil checked, windshield cleaned, and the other things done which are necessary to make driving a pleasure instead of a worry.

Habit is probably as great a factor in producing value, and vice versa, in real estate as any which we can name. Habit is the principal factor producing value in this class of service station and, in the opinion of the writer, is conducive in this case to a very stabilized value.

The metropolitan location: In our large cities we find service stations in the downtown section. These locations are not usually in the 100 per cent retail section, but just out of it. The station may be on a large site and be a pretentious array of buildings, pumps, and other equipment, or it may be the opposite extreme. Whatever the service-station development, it usually is *not* the highest and best use of the land.

This indicates one of the following conditions: *First,* that it is a favorable lease for the oil company in so far as the comparative value of the property is concerned, and that the owner or lessor is satisfied with an assured income about sufficient to pay taxes and, perhaps, fixed charges — in other words, a "taxpayer." *Second,* that the oil company has an unfavorable lease or tenancy, with consequent high marketing cost per gallon. *Third,* that there are additional considerations other than the sale of petroleum products which make the site valuable to the oil company—that nebulous value assigned to "representation," or unusual advertising value—and which are, in fact, of definite value. In this last case, the writer recalls a service station owned by one of the major oil companies in one of the large cities on a nationally known thoroughfare. This station, while of large volume, can hardly be said to be a paying proposition on that volume. However, it is pointed out as the "largest and most complete service station in the world," and, all things considered, it is probably worth the large investment by the oil company because of its advertising value and for what is called "pride of ownership."

The commercial-business location: This type of location serves primarily what are known as "commercial customers"—fleets of trucks, busses, delivery cars, and similar vehicles. It is usually situated in an unrestricted commercial zone or in an industrial zone and on a truck highway or artery. Generally, the service station is the highest and best use of the land. It is strictly a volume producer. The upper limit of value on this type of service station, in so far as the oil company is concerned, is set by comparison—land plus depreciated value of improvements. There usually is little if any value to be added because of "permit." A rental based upon gallonage, if a leased service station, is the fairest arrangement for all concerned in this class of location.

The highway location: This type of location developed when a distance of one hundred miles was a good day's journey by automobile and a rate of twenty-five miles an hour was considered a fast touring speed. For such of these locations as have survived it is obvious that a service station is the highest and best use of the land. Habit and also the improvement of the automobile and improvement of the highways have about eliminated the usefulness of this type of location except in unusual cases. There will be, however, a continued use for this type of service station at various natural stopping points on the highways—at tourist camps which are now in the process of evolution, in substantial developments at the country crossroads, and in connection with scenic and recreational developments.

The mixed-use location: This type of location extends through a long list of combinations, a few of which are mentioned below. Usually the service-station use, while important, is secondary, and a careful analysis is necessary to determine the highest and best use of the property. A large garage may have service-station facilities in the garage; the potential, in this case, will be only the garage patrons. A garage may be set back from the street or otherwise arranged so as to have drive-in service-station facilities available to the motoring public. A parking lot may have service-station facilities more or less available and accessible. Most of the large tire companies now have service stores which have service-station facilities (petroleum). A new-car or a used-car dealer may have more or less adequate service-station facilities in connection with his agency.

In all of the above, and in any which could be added to the list, the utility for service-station use is secondary because, primarily, the garage proprietor is interested in storing or repairing cars, the parking-lot manager in parking cars, the tire company in selling tires, and the car dealer in selling automobiles. The oil company basically sells only petroleum products, and the value of a mixed-use service-station location should be discounted accordingly when service-station use is the highest and best use.

THE APPRAISAL PROCESS

There are various methods of appraising a service station. The writer believes, however, that the following procedures give the best results. All authorities do not agree on the specific methods of any appraisal process, and total agreement cannot be expected on these procedures. They are presented in the hope that their consideration may prove helpful. The comment previously made as to the value of a service station under lease to a major oil company should be borne in mind. The procedures following are intended to give an idea of the basis by which the terms of the lease are determined, or on which the purchase is made. Of necessity, each subject is only briefly covered.

Three processes, or parts, comprise the basis of the opinion of value. In general, the remarks apply to a new location, comments being made during the discussion as to existing service stations.

1. Estimate the value of the property by comparison—*comparative value.*
2. Estimate the value based upon the utility or the amount of estimated (or actual) business at the service station—*utility value.*
3. Compare and adjust the above two values by analysis of the data which have been obtained for a basis of opinion of the market value of the property.

COMPARATIVE VALUE

Due to the scope of the activities of the oil companies, especially the major oil companies, it is often possible to obtain directly a comparative value of the prop-

erty from the data which they have on the many service stations already constructed and in operation in different parts of the city, county, state, or several states. In other words, they are most likely to have had experience with and data on a location so similar in all respects to the subject location that small differences may be readily adjusted through the judgment of the appraiser. At least, such informative data make an excellent starting point. Of course, the appraiser should assemble data on all service stations in the subject area for comparative purposes.

The component parts of comparative value are assumed to be the value of the land plus the value of the service-station improvements.

Land value comprises:

Value of the site, by comparison.

Note: In certain instances this value may be obtained by a capitalization process by projecting a theoretical building on the site, other than service-station improvements. When this is done, service-station use is not the highest and best use of the site, and consequent complications arise. The result probably would be a recommendation not to use the site for service-station purposes.

Value of the service-station permit.

In evaluating the site, consideration should be given to its physical adaptability to service-station use. The natural location for a service station is at a street intersection, and usually the most ideal and economical size of a site is from eighty-five to one hundred feet front on the main street by an even depth of from sixty-five to one hundred feet on the side street, the proper depth depending considerably on the ratio of traffic on the two streets. Greater or smaller dimensions from those stated vary the values, but do not vary in value according to the usually available depth tables and corner-influence tables. The above dimensions also assume a rectangular lot. Irregularly shaped lots must be very carefully studied for layout and circulation. Difficulty of ingress and egress for any cause will ruin any service-station location. Topography should be carefully considered. Within limits, it should be remembered that the steeper the grade of the street, the more frontage and area are required for proper circulation or movement of cars in the service station. A grade of any amount is a deteriorating factor and should be given careful study. The ideal frontage for an inside lot is about one hundred feet or more. If above street grade or below street grade, the cost of filling and extra foundations or of grading to street level should be considered.

A survey of the neighborhood should be made, the area included being all that which has any relation to or effect upon the subject site. Perhaps it may be necessary to survey similar areas in other parts of the metropolitan area to secure sufficient data. Information secured should include comparative sales for commercial purposes, together with listings, rentals for commercial property (both paid and asked), and rentals for apartments and houses in the supporting area. Of course, any data on service-station property sales or rentals in the area are most valuable.

The above data should then be assembled, analyzed, and reduced to a unit basis; and from the result a value per unit front foot should be developed. This unit front-foot value should then be used to place a value on this land for the usual commercial purpose.

The following table showing the relative front-foot values in relation to rentals has been found helpful in arriving at an approximate unit front-foot value. This table is empirical, and the writer does not guarantee it as to accuracy; nor does he know its original author so that proper credit can be given for the idea. Checked by experience over a considerable period of time, however, it has been found to work very well as an approximate means of checking the unit front-foot value.

TABLE SHOWING APPROXIMATE RELATION BETWEEN UNIT RENTALS AND UNIT FRONT-FOOT VALUES

	A. When the average rent of a single-family house is:	B. When the average rent of an apartment in a multiple-family house of 2 to 8 apartments is:	C. When the average rent per room in an apartment house is:	D. Store rents for 15' x 60' stores will be:	E. Land values on commercial sites per unit foot (1' x 100') will be:
Type 1	Below $40 per month	Below $40 per month	(There will be none in this type neighborhood.)	$40—$50 per month	$150—$200
Type 2	$40—$50 per month	$40—$50 per month	(There will be none in this type neighborhood.)	$50—$60 per month	$200—$250
Type 3	$50—$75 per month	$50—$65 per month	$12 per month	$75 per month	$250—$350
Type 4	$75—$100 per month	$75—$90 per month	$15 per month	$100 per month	$350—$500
Type 5	$100—$150 per month	(There will be none in this type neighborhood.)	$20 per month	$150 per month	$500—$650
Type 6	Over $150 per month	(There will be none in this type neighborhood.)	$25 per month	$200 per month	$650—$800 and up

Other things being equal, the near right-hand corner is the more desirable corner for service-station purposes at an intersection. Furthermore, the opinion is rather general that the incoming side of the street with respect to traffic is the more desirable. These statements should not be taken as a rule, as exceptions are numerous. Careful study and judgment are the only methods of determining the most valuable corner. For example, consider an intersection where the traffic is controlled by a traffic light: The service station on the near corner is completely blocked when three or four cars stop on the red light; the fourth or the fifth or the following cars cannot get in when the light is red. Then, when the light turns green, the fourth or the fifth or the following cars will not turn into the service station ordinarily, but will go on through with the traffic. It is therefore reasonable, in this case, to assume that the far right-hand corner would be more desirable.

On the other hand, consider a location which is at a desirable street intersection, the streets carrying about equal traffic, which has insufficient frontage to permit the "drive-in" and the "drive-out" on the same street, and where there is no traffic light. On the near corner, the "drive-in" may be arranged on the main street and the "drive-out" on the side street. The same frontage, however, could not be used economically on the far corner because the "drive-*in*" would have to go on the side street, and cars would not ordinarily head into the cross traffic on the side street to enter the "drive-in." Therefore, it is reasonable in this case to assume that the near right-hand corner is the more desirable. Many other considerations might be mentioned.

The value of a service-station permit will vary from nothing to several thousands of dollars. It is almost entirely a question of restrictions, the value increasing about as the restrictions increase. For example, in most cities in the less restricted business zones or in industrial zones, except for conforming to structural specifications of a building code and fire laws, there usually is no restriction as to the use of property for service-station purposes. On the other hand, in a small retail business zone serving a high-class residential development, it may be that the restrictions are such that only one service station will be permitted in the area, or that all owners of record of land in the development must give written consent to the use of the property for service-station

purposes. The relative value of the permit in each example is obvious. In the first case there can be unlimited competition to the proposed service station, while in the second case it means that practically all potential business of the desirable neighborhood will be enjoyed by that proposed service station. Conditions should be carefully investigated, analyzed, and evaluated.

Costs in connection with securing a permit will not necessarily vary as the value of the permit varies. Procedures for securing a permit are different in different cities and localities; therefore, the permit conditions affecting any given site and the procedures for securing a permit should be carefully ascertained in each case.

Assuming the economic need of the service station, the *bottom* limit of the value of a permit, in the writer's opinion, will be the cost of securing it.

Unusual conditions of location, traffic, permit, monopoly due to restrictions, zoning, political influences, and similar factors may produce a value for service-station purposes in a given location which is out of all relation to adjoining sites. This fact is aptly stated by Stanley L. McMichael in the second edition of *McMichael's Appraising Manual:*[2]

> "A most striking fact revealed in connection with the valuation of gas station sites is that the value of land used for such purpose bears very little relation to the value of adjoining lands. It is frequently found that for the use to which such sites are being placed they are worth from five to ten times as much as adjoining land. Indeed, some unusually strategic sites, in outlying neighborhoods, where heavy traffic exists, where visibility is extraordinary, where competition has as yet failed to appear, and where buying urge abounds, have been found to be worth hundreds of times the value of given units of agricultural land immediately adjoining. *One such site was found to be worth 1,600 times the value of adjoining land of identical area!* This was a point intersection or 'Y' where two heavily traveled boulevards converged into a main highwav near a large California city in which unusually heavy traffic prevailed 12 months of the year."

[2]McMichael, Stanley L., *McMichael's Appraising Manual* (2nd ed.; New York, Prentice-Hall, Inc., 1937), p. 190.

Because this added value is fundamentally due solely to the fact that the site may be or is used for service-station purposes, it is the writer's opinion that the added value is "permit value."

THE IMPROVEMENTS

The present improvements: Theoretically, the improvements on a site which have to be removed so that a service station can be constructed are an item of cost, or price, rather than an item of value.

From a practical standpoint, it is best to consider present improvements of a property as part of the "value of improvements," rather than as part of the "value of the land." Obviously, they must be considered in evaluating an improved site, as compared to evaluating a site which is vacant; therefore, for practical purposes they are considered here.

Since present improvements are an item which adds to the cost rather than to the value, and since they are of no use to the service station, they will in most cases prove to be a negative value. Consider two examples: *First,* where store or commercial buildings are demolished to construct a service station, the price almost invariably will be based upon the rental income from the buildings. The actual value, however, for the purposes of service-station appraising, is only the value of the salvaged material. *Second,* where non-income-producing buildings, such as residences, are removed or demolished, there is usually not much question as to the value, it being only the value of the salvaged material, removed either as an entirety or demolished. The value of the salvaged material may be considered as a credit item in the cost of the new improvements.

In some procedures, however, it has become the practice to consider present improvements under the heading of "land value" or "site value," rather than under

the heading of "value of improvements." This is so because of the practice of oil companies and other large corporations to consider the *price* which they pay for a site which they intend to develop for their own use, whether improved or not, to be its *value* to them. There is some merit to the idea since it simplifies procedures for them.

Present improvements should be studied carefully and their evaluation handled at some logical place in the appraisal procedure, based upon the data obtained. In giving an opinion of value for a service-station site where there are improvements on the site, a statement should always be made regarding them.

The writer has in mind an unusual example where present improvements were a decided plus value. A certain site in a large city on the eastern seaboard was found to be suitable for service-station purposes and was acquired and later developed for that purpose. The very old house on the site was one of the first constructed in the city; it was originally built for a sea captain. A study of the house showed that many things used in its construction were of period design, material, and workmanship much desired by collectors and by those interested in early American architecture. The result was that a considerable sum was realized by the owner from the salvage—from the sale of the staircase, doors, mantels, hardware, and similar items to collectors, an institution, and individuals.

The new improvements: Improvements to be made on the site should be considered primarily from the standpoint of their utility for service-station purposes. A service-station building of attractive exterior design, of sound and workmanlike construction, of the type of construction suitable for the site location and in accordance with fire restrictions, building codes, and other regulations, and of interior arrangement and facilities to serve effectively the kind and amount of anticipated potential business produces the most value for a given expenditure.

Throughout the country there are many service-station buildings which have been constructed primarily for their "attention" value for advertising purposes. Perhaps some advertising value has accrued from the money spent on such construction. If such is the case, it should be given consideration from that standpoint, but not from a practical utility standpoint. As an illustration, a service-station building constructed to give the appearance of a lighthouse may have advertising value, but certainly no automobiles can be lubricated nor crankcases drained in the lighthouse tower.

In other instances, service-station buildings have been designed so as to be in architectural harmony with their surroundings—for example, a specially designed Colonial service-station building in a Colonial village development. Such architectural harmony is usually accomplished at an additional cost, but additional value is undoubtedly reflected and should be included.

For estimating purposes, in lieu of an itemized material and labor estimate, it is convenient to separate the item of *new* improvements into three component parts: service-station building, yard improvements, and equipment. If information is developed on the "in-place" cost of the units comprising each of these component parts, a value, based upon a sound estimated cost, may be quickly found.

Service-station building: As a yardstick for a service-station building, assume a rectangular building about forty-five feet wide (front) by twenty-five feet deep. This building, properly arranged, contains an office, a storeroom, two toilet rooms, a

lubrication bay, and a washing bay. However, divided into "in-place" units, the building contains (1) an office unit, including storage room and two toilet rooms; (2) an inside bay, i.e., one with front and rear walls, floor, and roof only; (3) an outside bay, i.e., same as (2) plus an outside wall.

If costs are developed for the three units, it is apparent that the cost of nearly any service-station building can be quickly approximated by using the appropriate "in-place" units. Except, perhaps, for the heating system, it is suggested that all other items of construction be included in the appropriate unit—for example, water, electric wiring, and plumbing. Heating costs will vary geographically and by specification and should be considered separately. Factors can be developed to consider variation in cost according to various materials used, such as brick construction, stucco construction, or frame construction. Factors also can be developed to consider variation in cost according to geographical location; it is evident that there will be a difference in the cost of the same building when built in a metropolitan area, such as Chicago, as compared with a rural area, such as certain parts of South Carolina or Kansas.

Yard improvements: Appropriate "in-place" unit costs may be developed on the various kinds of paving, varying from stone and gravel driveways to hard-surface asphalt or concrete and cement paving. Included in the cost of yard improvements should be the cost of "curb-cuts," approach ramps, and similar necessary construction. Include under this item sewer connection, water connection, electric service, underground piping, fence or other enclosure, and all similar items, except unusual grading, retaining walls, and items required to make the lot usable. These latter items should be considered and reported on separately in evaluating the lot, as has been mentioned in the foregoing.

Equipment: Especially in the lower-value and proportionately in the medium-value service station, the value (and cost) of equipment is a large percentage of the total value (and cost). This component part of the total is probably the one with which the average appraiser will be least familiar. Under this heading should be included all equipment especially used for dispensing petroleum products, and for the attending services customary at the class of service station which is being appraised. Equipment included should be that which really is necessary for the improvement to function as a service station, such as gasoline pumps, underground tanks, auto lift, air towers, etc. Tools, removable lubricating equipment, battery chargers, and similar items ordinarily should not be included as they are considered more in the category of working capital.

The prices of the various items of equipment are readily available from the equipment companies and from the oil companies. These prices should be used as a basis for "in-place" unit costs so that this part of the cost of improvements can be readily estimated and evaluated.

Following is a list of the equipment which may be included. The quantity and the kind, size, and character of each item will depend on the classification and character of the particular service station.

Underground Tanks:
(Note: Standard capacities are rated in gallons at 280, 550, 1,000, 2,000, etc.)
Pumps
Electric Meter Computing Type
Electric Meter Type
Visible Type
Hand Operated
(Note: Electric meter pumps, plain or computing types, may be either single unit or dual unit. There are also special styles, e.g., showcase pumps.)
Air Compressors
Automobile Lifts
Air-operated, Hydraulic, Roll-on Type

Air-operated, Hydraulic, Free-wheel Type
Electrically Operated
Pits
Open Steel
Open Concrete
Air Stands
Pedestal Type with Reel
Ceiling or Wall Type with Reel
Air Meter, Wall or Pedestal Type
Yard Lights
Floodlights with Poles
Floodlights without Poles
Island Lights
Miscellaneous
(Under this heading, equipment other than the above, which, in the opinion of the appraiser, is a permanent part of the improvement, should be listed, e.g., a permanently installed brake-testing machine. Such an item as a signboard on the premises might also be considered here.)

An analysis of a property already improved, i.e., a going service station, may be made by using the above-mentioned classifications and counting and costing the items. Depreciation should be properly considered, and, especially if the improvements are growing old, perhaps ten years more or less, functional obsolescence must be carefully analyzed.

RENTAL REQUIRED TO SUPPORT VALUE BY COMPARISON

From the above discussion, an opinion or estimate of the comparative value of the property may be developed. Using the comparative value as a basis of estimate, the proper rental may be approximated. The estimate of the rental per year is the total of the following component parts:

1. Interest on the value of the land.
2. Interest on the value of the facilities.
3. Depreciation per year of the value of the facilities.
4. Maintenance per year of the facilities.
5. Insurance on the facilities.
6. Taxes on land and facilities.

This rental, when developed by the use of appropriate rates, should be compared with rentals on similar properties and otherwise used by the appraiser as a check on his opinion of value.

The writer believes that the comparative process in the majority of cases is the most accurate, and the comparative value, therefore, is given the greatest weight in forming an opinion or making an estimate of the market value.

UTILITY VALUE

As the name implies, the *utility value* is based upon the amount of business which can be produced by the premises as a service station. This amount may be either estimated or actual, depending upon whether the service station is a proposed improvement or a going business.

The amount of business done at a service station is most conveniently measured by the number of gallons of gasoline sold. This figure is usually expressed in gallons per month or gallons per year. Assuming that the property is of proper size and is properly improved, the quantities of motor oil, greases, tires, wash jobs, etc. bear a definite relation to the quantity of gasoline sold. For example, a well-managed service station will sell one gallon of oil for each fifty gallons of gasoline. These various ratios may be ascertained from the oil companies; the particular oil company at interest will be in a position to state the ratios which it considers satisfactory. It is obvious that where gasoline is practically the only petroleum product sold, the value is depreciated, and, where there is an unusual opportunity to sell other petroleum products and attending services, the value is appreciated. This situation is considered in choosing the proper "rental-per-gallon" figure below.

The process of estimating the *utility value* is as follows:

A. Determine the *actual* or *estimated* gallonage (of gasoline) per month or per year.
B. Determine the allowable rental per gallon.
C. The product of A. multiplied by B. will be the rental, per month or per year, which the amount of business will justify. This rental figure should be compared with that figure which was estimated under "Comparative Value." Such a comparison, if all data have been correlated and studied, will

have a decided influence on the appraiser's opinion of value. It will also influence him, to some extent, in choosing a rate in D. Obviously, if this rental is considerably less than the comparative value, an opinion that the highest and best use of the site is for service-station purposes will be unconfirmed.

D. Capitalize the yearly rental in C. at a proper rate to arrive at a *utility value.*

Careful study and consideration by the appraiser are necessary in the entire process outlined above. Each item requires experienced judgment, for each error in judgment is multiplied in the final estimate. It is submitted, however, that this process is the best one which has been developed for the purpose. Its principal purpose is to serve as a check on the comparative value.

GALLONAGE, ACTUAL AND ESTIMATED

A record of the gallonage which has been done at a going service station should be secured. Those data, however, should not be used without close scrutiny, analysis, and possibly adjustment. Perhaps the actual gallonage is inflated, or perhaps it is less than the normal volume. The effect which any of the items mentioned below may have had on the gallonage should be considered, and any adjustments which, in the judgment of the appraiser, may be necessary should be made before the data are used.

Estimated gallonage is the anticipated business from a new service station. In this discussion it is assumed that the service-station site is ample for service-station purposes, that the improvements are proper and sufficient, and that ingress and egress and circulation are good. In other words, it is assumed that physically the service station is satisfactory or, if it is not, that a proper discount will be applied.

The major influences to be considered in estimating gallonage are:

1. Registration density: How many automobiles, trucks, and other motor vehicles are in the area which the service station will economically serve? This information may be obtained sometimes from various available surveys, by estimates based upon observations, by approximating the per cent of the total registration of the city which is in the supporting area in proportion to the respective population figures, etc. The *average* car uses 600 gallons of gasoline per year.

2. Classification of potential according to buying power: Are the owners of the vehicles in the above classification in the "Gimme two gallons" class or in the "Fill up the tank, please" class? Is the neighborhood which forms the supporting potential of the location price-conscious or quality-conscious? In the first case the average gallonage per car may be about 300 gallons per year, and in the second case it may be 1,000 gallons per year.

The United States Government conducted a nation-wide survey, extending over a period of about two years, to ascertain the buying power of the people and the best market. These facts were developed: 89 per cent of all cars, gasoline, oil, and tires were purchased by 50 per cent of the people, and 63 per cent of all cars, gasoline, oil, and tires were purchased by 25 per cent of the people. The classification of the potential obviously assumes great importance; perhaps the neighborhood is in the first 10 per cent—that is, a "two-car" neighborhood.

3. Traffic and traffic flow: Traffic counts, to be of any real value, must be divided so that the flow of traffic in its component lanes can be analyzed. The traffic count, when taken merely as a quantity, leads to grave errors in judgment. An entire article or book could be devoted to this single item of traffic. Consider these questions as a brief summary of the major factors of traffic analysis:

A. What is the usual or average daily flow of traffic past the location?

B. Is the natural flow of traffic—to and from the potential area served by the location—past the location?
C. Is the flow over a natural traffic artery? State highway? National highway?
D. What is the relative speed of the traffic? (High-speed traffic and congested traffic will not stop.)
E. What is the classification of the traffic according to the discussion in the second item of influence?
F. What is the relative traffic importance of the particular corner as compared with the other corners at the intersection? (It is usually assumed that the corner about which traffic makes the most right-hand turns is the best corner at an intersection.)
G. What are the relative street widths? What is the relative importance of the streets as indicated by the proportion of traffic? Is one frontage (or both) on a dual highway? (A dual highway practically eliminates the potential of the far lane.)

Many cities have "traffic-flow" maps available. A study of such a map will prove of value when the relation of the individual site to the flow is considered, plus a consideration of the potential in items one and two.

The writer knows of no method or formula whereby traffic counts can be reduced to gallons. All such formulae so far developed seem to have produced such gross errors, when applied to any but a very limited range, as to give basis to the opinion that they are worthless. Perhaps further study and proper qualifications will produce some usable method, but at this time the use of qualified individual judgment seems to be the best procedure.

4. Product acceptance: In each community the products of the various oil companies have varied public acceptance. If the product of the "X" Oil Company is to be sold through the service station, the gallonage will be one figure. If the product of the "Y" Oil Company is to be sold through the same service station, the gallonage may be more or less, depending on the relative public acceptance of the products, other things being equal. This item may be judged by considering the relative total sales in the community together with the relative number of service stations for the various oil companies. Each oil company usually has this information developed. The information as to the total and proportional amount of product sold also may be obtained from the gasoline tax records.

It should be noted that relative product acceptance is quite definitely known to the various oil companies. It has a controlling influence with the companies in setting their relative "allowable rental per gallon."

5. Management: In estimating gallonage it is necessary to assume that the service station will have management as good as the average. It is an axiom with the oil companies that "a good manager at a poor service station may produce good volume, but a poor manager at a good service station surely will not produce volume." The problem of service-station management, due to various limitations and restrictions which have developed during the past few years, is one of the major concerns of the oil companies. For this reason, careful investigation should be made, especially when considering actual gallonage, to determine whether or not the service station has been efficiently managed.

It is said that good location, good product, and good management are the necessary component qualities of a good service station. It is the writer's opinion that management (sometimes referred to as service-station operation) has greater direct influence than either location or product.

6. Competitive gallonage: The data obtained as the basis of an opinion of value should include complete information on all service stations in the supporting area. This information should include the gallonage history of these service stations. The use of this information as a basis of an opinion of the estimated gallonage is best illustrated by an example: Assume

that in the supporting area of the location being appraised there are now nine service stations doing a total average volume of 90,000 gallons per month, or an average volume of 10,000 gallons per station. Roughly, 90,000 gallons represent the potential business of the supporting area. Theoretically, when the new service station is in operation, each station should average 9,000 gallons per month—all things being equal, which they usually are not. This average must be modified by consideration of the influence of traffic, product acceptance, and management, particularly product acceptance.

7. Comparative gallonage: This item consists of data as to the gallonage of similar service stations located in similar areas of the same or comparable cities. If other than the same petroleum products are dispensed at the similar service stations, the gallonage must be adjusted for product acceptance before it is comparable.

8. Oil company estimate: The oil companies have various means and methods of estimating gallonage. Probably the one most generally used is the opinion of several experienced men who are familiar with the area. These men may arrive at their respective estimated gallonage figures by various procedures. Since they usually are responsible for making the service station actually produce the estimated gallonage, it is a carefully considered figure. It is relatively a very important item to the appraiser as a basis of an opinion of the estimated gallonage. This figure should be obtained when possible.

9. Price conditions: Estimated gallonage must assume a normal and comparatively stable retail price for petroleum products. There is no single factor which will produce an inflated gallonage, or an opposite condition, more surely than a fluctuating retail price in the ambient area. If the data obtained as to the gallonage of competitive service stations show wide variations, the retail price history in the area should be carefully investigated and analyzed. The products of all the larger, reliable oil companies vary only slightly in price due to competitive activities and to various legal regulations. These and other factors make it logical to assume that the retail price of petroleum products at the various service stations in any given area will be practically the same for a comparable grade of product. When this is not so, the service stations with the lower retail price will have an inflated gallonage, and vice versa.

Here are some of the many things to look for when investigating price history:

1. Oftentimes "off-brand" and "unbranded" products are being sold in the area. What is the retail price policy of these service stations? What is their effect on other service stations?
2. Poor management at one service station in an area may disrupt the entire area for a time. A service-station manager usually is an independent merchant. He can sell his merchandise at whatever price he chooses. Sometimes the manager (or owner or operator) does not appreciate or know his overhead cost and the other costs of his business; sometimes he loses sight of them in his desire for volume. He sells at a discount; his volume is inflated; the business in the area is thrown off balance. If he becomes aware of the true facts soon enough, he will try to rectify the situation; if he does not, he probably will go out of business quickly. In the meantime, the gallonages at the various service stations in the area are not normal. Eventually a balance is again established upon a new, normal basis, but in the meantime all service stations in the area suffer.
3. Effects of varying taxes may produce volume above or below normal. For example, consider an area which includes a portion of two states, where one state has a higher gasoline road tax than the other. It is obvious that the service stations in that portion of the area which lies in the state having the lower tax will, under normal conditions, have an inflated volume.

ALLOWABLE RENTAL PER GALLON

The rental per gallon which an oil company will pay in any given area is quite definite and comparatively easy to ascer-

tain. Such statistics should be obtained from the oil companies and analyzed carefully. It is obvious that the allowable rental per gallon of the company whose products are to be dispensed at the service station should be given the first consideration and the greatest weight.

This figure will vary with the different companies. It will be noticed that there is a tendency to an inverse relation between product acceptance and allowable rental per gallon. It will be noticed also that the figure will vary for the same company in different areas; this is true because public acceptance, desire for representation, desirability of location, sales policies, etc. vary.

Under normal conditions, the allowable rental per gallon will vary from the bottom figure of about one half a cent per gallon to as much as three or three and one half cents per gallon in unusual circumstances. The typical figure will be somewhere between one and two cents per gallon.

EXAMPLE

The above discussion of the appraisal process may be summarized by an example. The following assumptions are practical figures, but are necessarily arbitrary, for it is impossible to list and correlate all pertinent data in a brief example.

Assumptions:

A vacant, level service-station site ample for service-station purposes; zoning is retail commercial; improvements are to be proper and sufficient; ingress, egress, and circulation are easy; an economic necessity for the service station exists; only petroleum products and the usual accessories and services are to be sold; a major oil company proposes to lease the completed service station.

An investigation of the permit system for gasoline discloses that permits are very difficult to obtain, a requirement being that 80 per cent of all property owners within a radius of 200 feet of the property must give their written consent to the use of the site for service-station purposes. The cost of doing this, however, is not a factor; the actual expenditure is estimated to be $500. Proper permit may be obtained. The above restrictions and other data are reasons for our assumption that there will be few, if any, additional service-station permits granted in this area. This, together with our correlated data on property values in the area and on other service-station sites, forms our basis for an opinion of value of the site of $15,000 for service-station purposes. (This opinion considers an estimated value of the service-station permit of about $3,000.)

From the plans and specifications of the proposed service station, which are provided by the oil company, we calculate that the cost of the proposed improvements will be $10,000 complete. Since the improvements are as stated in the first assumption, we are satisfied to use this cost as the value.

The estimated gallonage: 15,000 gallons per month.

The allowable rental per gallon: one and one half cents ($.015).

It has been ascertained that the terms of the major oil company's proposed lease are $2,400 per year rent for a term of ten years, the lease to include a purchase option of sufficient amount to allow a reasonable profit to the owner.

Calculations:

Comparative value calculations:		
Land value by comparison		$15,000.00
Value of improvements		10,000.00
Total value by comparison		$25,000.00
Rental (based upon comparative value):		
Interest on $15,000 at 6%	$	900.00
Interest on $10,000 amortized, average		400.00
Depreciation, straight-line approximately 15 years), on $10,000, 7%		700.00
Maintenance (terms of proposed lease include provision that lessee paint improvements and maintain dispensing equipment), 1%		100.00
Insurance, ½%		50.00
Taxes (land and improvements), estimated 2%		500.00
		$2,650.00
Utility value calculations:		
15,000 (estimated gallons) multiplied by $.015 (allowable rental per gallon) equals $225 per month, or $2,700 per year		
This is a 10% return, gross, on an investment of $27,000 (11% return, gross, on $24,544)		
Lease calculations:		
Present worth of $2,400 per year, for 10 years		$17,664.00
Land value of $15,000 reverted from end of lease		8,376.00
Unamortized portion of improvements at end of lease is 30% or $3,000, reverted from end of lease		1,675.00

(Note: This may be neglected or adjusted under certain conditions, e.g., if all equipment is supplied by lessor.)

Total $27,715.00

Conclusions:

A study of the data which we have obtained and correlated and our careful consideration of the above calculations will probably convince us that the comparative value of $25,000 more closely represents our opinion of *market value.* We shall render a report accordingly. In our report, however, we may comment on the value of the lease when and if it is completed.

FUTURE OF SERVICE-STATION PROPERTY

In conclusion, what can be said about the future of service-station property? Who can speak about the continued use of any class of property? In the writer's opinion, however, if the property is located so as to continue to fill an economic need, if it is physically adaptable to such relatively minor changes as may be brought about by future developments of the automobile, it is property with a very stable value. From time to time we hear comments concerning changes in the automobile, especially as to its fuel, which perhaps may eliminate the service station. Personally, it is believed that as long as there are automobiles, there must be service stations. This is best illustrated by a particular case.

Consider the development of the Diesel engine and the use of Diesel fuel. At the present time, the Diesel engine has been developed successfully for use in trucks for long-distance hauling at a maintained constant speed. Also a few service stations, in commercial-business locations, have facilities for dispensing Diesel fuel to these trucks. Assuming that the Diesel engine is perfected for passenger cars, will the motorist habitually measure out oil from the tank which supplies his oil burner and put it into the tank of his automobile? The answer is "No"—and for several reasons. *First,* there is the habit of following the line of least resistance. It will be very easy to buy Diesel fuel at the service station. Bulk oil can be purchased by the motorist today for use in his car, but the number of motorists who purchase it in quantity and put it into their crankcases themselves is very small. Most of them prefer to go to the service station, have the oil checked and a proper grade supplied, or drained and changed. *Second,* it will be difficult to have the proper grade of fuel available except at the service station. *Third,* when Diesel fuel is used generally for a motor fuel, it will, no doubt, be subject to all road taxes and other taxes now imposed on gasoline. Consequently the proportional saving to the motorist for such handling of the fuel himself will be far less than he at first anticipated; therefore, he will go to the service station as usual.

The same line of reasoning applies to almost any other change in fuel which at this time can be anticipated or imagined, even to the distant possibility of transmitting power to the automobile through the air via radio waves. At such time, the service stations probably will be doing a thriving business in power tubes and other items, as well as otherwise servicing the automobile.

Finally, we often hear the comment that there are too many *filling* stations. The writer thoroughly agrees with this comment, but the unfailing economic laws will undoubtedly take care of the situation. However, there is still a dearth of economically necessary, properly located, properly built, and properly equipped *service* stations.

THE EXPERT WITNESS

BERT W. LEVIT

THE appraiser's approach to the subject of court testimony, whether in condemnation suits or other legal proceedings involving property valuation, is the approach of the expert witness.

What is an expert witness? Generally speaking, we may say that the law of evidence permits witnesses to testify to facts within their personal knowledge, and not to opinions. There are two reasons for this so-called opinion rule: first, the opinion of a witness ordinarily is unnecessary and superfluous and therefore wastes the time of court and jury; and, second, if litigants are permitted to pile up the opinions of influential or numerous witnesses, the trial tribunal might be improperly influenced thereby. Other reasons for the rule have been put forward; for example, that to permit witnesses to express opinions would usurp the functions of the jury.

There are certain well-recognized exceptions to the opinion rule, one of which, for instance, permits any witness to state an inference or opinion based upon data observed by him but incapable of being adequately communicated to the jury by words or gestures.

Subjects of testimony may be divided into two classes: those subjects on which a sufficient experience is possessed by the normal, adult person; and those on which a sufficient experience is possessed only by men who have followed some special occupation, trade, art, science, or some other distinct mode of acquiring experience. It is, of course, in the latter class that testimony as to value falls.

WHO MAY TESTIFY

A witness to value need not have had special training as, or be by occupation, an expert in the technical and academic sense of the word, although he must have knowledge — that is, he must be familiar with the standard of value for the class of objects in question—and he must be acquainted with the specific object to be valued. To testify to realty value, the witness need not be a dealer in land nor even have had dealings in land, nor need he have heard of specific sales. And it is always true that an owner of property is competent to testify to its value.

It is provided by California law that, in any case where expert evidence is required, the judge of his own accord or on motion of either party may appoint one or more expert witnesses to investigate and testify at the trial. Such an expert may be called and examined and cross-examined by either party, or the court itself may call and examine the witness, subject to cross-examination by the parties. When this is done, the fees of the expert or experts so called are fixed by the court and are taxable as part of the costs of the action. It should be pointed out, however, that court-appointed experts are a comparative rarity in practice. The obvious importance and weight that such testimony would have in the eyes of the jury, and the uncertainty of whether the result would favor a particular party or go against him, deter the litigants; and the courts, humanly enough, disincline to assume the added responsibility of such appointments on their own motion.

PUBLIC OPINION AND THE EXPERT WITNESS

There is no denying the fact that the public and a good part of the legal pro-

fession as well do not have a very high regard for expert testimony of any kind. The medical expert, the valuation expert, the engineer—all have come in for a considerable amount of bitter criticism. It frequently has been asserted that expert testimony tends only to confuse the jury and that in all cases of any importance each side can and usually does purchase the testimony of a number of experts, whose opinions, while they agree with and support the position of their employer, are completely at variance with the opinions of the equally prominent experts hired by the opposition. The experts, in turn, react by bitterly criticising the lawyers and complaining of the type of cross-examination, sometimes abusive, which they have to undergo.

Like most generalizations, there is a germ of truth hidden behind these exaggerations. Some lawyers, lacking thorough preparation or subtlety, attempt to supply the lack by substituting abuse. In fairness, it can be said that such advocates are in the minority and that tactics of this kind almost always prove to be a boomerang harmful to the cause of the unfortunate client whose lawyer is so shortsighted.

On the other hand, it is not unknown for so-called experts to sell their services to the highest bidder rather than to reserve them for the side with which they honestly agree. And opinions can be purchased with other considerations besides money in the form of exorbitant fees—such as, for instance, the assurance of future favorable treatment of the expert or his clients by a particularly powerful or influential litigant.

Again, it is not to be wondered that the layman is puzzled and suspicious when Doctor A tells the jury under oath that the plaintiff's injuries have disabled him for life, and Doctor B swears that he has completely recovered; or, in a valuation case, when prominent Appraiser X positively affirms that the value of a piece of realty is $5,000, while equally prominent Appraiser Y is equally positive that the value does not exceed $500. Some attorneys have been known to insist that the discrepancy compels the jury to choose which set of experts is lying and which set is truthful, particularly where their witnesses are more prominent in the community than those on the other side. What wonder that the confused jurors split the difference, call it a day, and consign both sets of experts (and all in their profession) to the purgatory of prevaricators!

Nevertheless it is entirely possible for well-trained men honestly to reach opposite conclusions on the same set of facts. This may be due to differences of temperament, to differences of approach, to mistakes, or to differences of opinion. The science of appraising is not an exact science, and it does not aim so much to arrive at a value as it does to arrive at a fair approximation of value.

Most people have the idea that there is something particularly reliable about eyewitness testimony, as opposed, say, to opinion evidence of an expert. But what is the fact? The late Professor Münsterberg, of Harvard University, shattered many illusions as a result of his experiments on the trustworthiness of observation. Bear in mind that these experiments were made in his classroom, that the subjects were his own students, that they were told in advance that they were to observe and later record what they saw, and that all of the experiments were of the simplest kind. The results showed that the students disagreed as to whether a traveling point moved with the slowness of a snail or with the rapidity of an express train, whether a time interval between two signals was one half a second or a whole minute, whether the number of small squares pasted on a piece of card-

board was twenty-five or two hundred, whether the moon in the sky compared with an object held at arm's length was as small as a pea or as large as a man.

You need never apologize for testifying to opinions or conclusions as opposed to eyewitness testimony of so-called facts. Indeed, your special training and ability might well be considered to make your testimony more reliable than much evidence based upon direct observation.

The expert is, in a sense, a judicial type of witness. He must be fair, though firm; he must be impartial, though definite. Once he lets the jury feel that he has an ax to grind, his effectiveness disappears or at least greatly diminishes.

PREPARATION FOR EXPERT TESTIMONY

Summarized in a word, the secret of success in condemnation court work, for expert and attorney alike, is *thorough preparation.* If you are thoroughly prepared when you enter the courtroom—assuming, of course, the soundness of your conclusions—you need have no fear of the effect that your testimony will have on your client's case. Moreover, you can be of invaluable assistance to the attorney in his preparation for trial; and any attorney who does not use, indeed insist upon, your help in this regard is ignorant of his duties.

What is meant by thorough preparation? Certainly it is not limited to a careful analysis and study of the property in question, although such careful and minute analysis and study are indispensable. Perhaps the best way to convey the tremendous scope implicit in adequate preparation for expert testimony is to compare the valuation expert with other types of expert witnesses. The handwriting expert must be master of the peculiarities and details of chirography; he must know the chemistry of paper and ink; and undoubtedly an acquaintance with the fundamentals of psychology would be helpful. The chemist need know only chemistry. The medical expert is well armed with a thorough knowledge of the human organism, its actions and reactions, plus an intensive clinical experience.

But to the appraiser, the principles of sound valuation procedure are but the foundation. Economics, politics, sociology, history—the theory and practice of all these play a more or less important part in each valuation problem. You will say that it is impossible for any man to master such a tremendous amount of knowledge. That is true, but your success will be to a considerable degree proportional to the depth and scope of your background of general knowledge. Long years of school training are helpful, but not essential; some of the most profoundly educated men are self-educated, and college dunces are numerous indeed.

This background of knowledge and experience—of wisdom, if you wish—is that intangible something which leads us to accept and have confidence in the opinion of one man and to reject or question the opinion of another.

On the specific preparation necessary to the rendition of an adequate appraisal report, and subsequent testimony thereon in court, it is not necessary to dwell. The importance of thoroughness in this regard is well illustrated by the following incident which occurred in a lengthy condemnation suit on cross-examination of a prominent expert called as a witness by the condemnor. Counsel for the condemnee interrogated the witness at length on specific prices paid on other sales. After this had gone on for some time, bringing out sales prices much higher per unit than the valuation which the expert had stated in his opinion, the expert got impatient and said, "You are only asking me about the high-priced sales. Why don't you ask me about the low-priced sales?" The at-

torney for the condemnee realized that this was a crucial point in the case because it had obviously centered the jury's attention on the witness and his valuation in a very effective way. The attorney, thanks to the full co-operation and assistance of his own experts, felt that his preparation had been so thorough that he was familiar with every comparable sale in the entire district over a long period in the past; therefore, he accepted the challenge and told the witness to enumerate all sales which he considered to be low-priced sales. The witness referred to his notes and after some delay mentioned two or three specific sales. Cross-examination as to each readily eliminated it as a basis of comparison. One was a probate sale; in another, the owners of the property had encountered financial difficulties and had been forced to sell; another involved property where the physical conditions relating to track facilities were entirely different from the property in suit. The attorney pressed his advantage by calling on the witness to produce more low-priced sales and, when the witness hesitated, suggested that a short recess be taken to permit the witness to examine his notes more thoroughly. After the recess the witness was little better off, although he had managed to dig up one or two more sales which had occurred so long before that they were of little practical assistance.

The point is this: In the first place, the witness should not have bluffed for effect unless he was prepared to be called, or unless he was absolutely certain that he would not be called. In the second place, and more significantly, the attorney for the condemnee would not have dared to call the bluff unless his preparation for trial had been so thorough that he was almost positive that the witness was bluffing. Otherwise, he would have been forced to pass over the incident as lightly as possible, knowing that opposing counsel would be unable to question the witness on redirect examination as to sales, because, under the law, evidence of other sales is not admissible to prove value, but may be used only on cross-examination to test, theoretically at least, the qualifications of the witness.

When the expert witness takes the stand, he must qualify himself to the satisfaction of the court as an expert in the field of his testimony. This is not difficult, and indeed opposing counsel will often willingly concede the qualifications of the witness. But it must be remembered that this question of qualification is not merely a question of satisfying the requirements of the law in the eyes of the *court*, but of far more importance it is a matter of impressing the *jury* with the conviction that the man they are about to hear is peculiarly well suited to express an opinion in which they as jurors can have complete confidence. Therefore, it is not sufficient for the expert to be asked merely if he is a member, for example, of the American Institute of Real Estate Appraisers; he should be asked questions tending to elaborate on the nature of this Institute, the strict qualifications for admission to membership, the exhaustive entrance examination, and so on. It is not unusual for the qualifying testimony of an expert witness to take as much or more time than the balance of his direct examination. Of course, qualification includes not only what might be called general or background qualification, but it should also include a detailed resumé of the specific preparation undertaken by the witness preparatory to testifying in the case at bar.

LEGAL CONCEPT

After the witness has qualified, he is then in a position to express an opinion on value. To do this effectively, he must thoroughly understand the legal concept

of condemnation valuation. It may surprise you to know that there are many cases of record in our appellate courts where expert testimony has been rejected as incompetent because it was based upon an erroneous measure of value from the legal standpoint.

The specific question asked of the witness, and which, by the way, defines the concept, may be phrased as follows: "With reference to this property, taking into consideration a seller, willing but not forced to sell and with a reasonable time in which to effectuate a sale, and a buyer, willing and able to buy for cash, and considering all of the available uses to which the property is adaptable, what in your opinion is the market value of this property as of the date of condemnation (or, in certain cases, as of the date of trial)?"

At the outset, we must distinguish between "market value" and "use value." It is true, of course, that it is impossible to conceive of market value or of any value without consideration of the uses to which the property is put or is adaptable. As Babcock says in *The Appraisal of Real Estate*:[1]

> "Appraising is not simply the placing of a value estimate upon a property. It is more inclusive. It involves a study of the correct use of the ground. The appraiser . . . . gives his opinions of the value as incidental and supplementary to his analysis of correct use of the ground."

And, similarly, Schneider in *California Real Estate Principles and Practices* states:[2]

> "All land gets its value from one of two sources: either what will grow on it, or what it will carry. . . . . Urban land has value . . . . only as the site of a building. Its value will depend upon location in the community and will be of great or little value, as the building erected upon it will produce a large or small rent."

Nevertheless, although market value and use value are inextricably interwoven, they are not legally synonymous. The distinction between them must be kept constantly in mind. This distinction was well expressed by the District Court of Appeal of California as follows *(Joint Highway District* v. *Ocean Shore R.R. Co.*, 128 Cal. App. 743, 754, 18 Pac. [2d] 413):

> ". . . . A dollars and cents estimate of the value in use for a given purpose . . . . is not permitted . . . .
>
> "We believe it perfectly clear that certain land may be of but small value in use for one purpose and of much greater value in use for another purpose. It may therefore be said to have a different value for one purpose than for another if the word value be understood as meaning its value in use. But a given piece of land has only one market value and not a certain market value for one purpose and a different market value for another purpose. This is true because by what has been termed the classic definition, 'market value' is fixed as the 'highest price estimated in terms of money which the land would bring if exposed for sale in the open market with reasonable time allowed in which to find a purchaser, buying with knowledge of all of the uses and purposes to which it was adapted and for which it was capable.' . . . . This market value may be greater or less than the value in use to either the owner or the condemnor, but in the eyes of the law it is a fixed amount determined by 'the highest sum which the property is worth to persons generally, purchasing in the open market in consideration of the land's adaptability for any proven use.'"

There are certain important corollaries that follow from this distinction. Be sure to insist that your valuation is based upon your experience, knowledge of the property, and knowledge of the district. Do *not* admit that it is based upon a *particular* use, as, for example, for industrial purposes; it is based rather upon *all available uses*, of which an industrial use is but one — though perhaps the highest available use, in your opinion. If you are asked whether you considered the property as industrial property, your answer

[1] Babcock, Frederick Morrison, *The Appraisal of Real Estate* (New York, The Macmillan Company, 1924), p. 2.

[2] Schneider, George A., *California Real Estate Principles and Practices* (New York, Prentice-Hall, Inc., 1927), pp. 482-3.

should be that you considered *all* uses of the property, *including* industrial. The same should hold for *any use* as to which you are questioned, even though you do not believe the property should be or could be so used — that is, you *considered* that use in fixing the value.

The use or uses considered must be reasonable or probable, and not merely speculative. As is said by Lewis in his work on eminent domain:[3]

> "It is said in some cases that it is proper to consider every element of value which would be taken into consideration in a sale between private parties. But this needs some qualification, since remote and speculative reasons are often urged by the seller in support of the valuation claimed."

And to quote from a California decision (*East Bay Municipal Utility District* v. *Kiefer*, 99 Cal. App. 240, 250, 278 Pac. 476, 279 Pac. 178):

> "Speculative and conjectural calculations of prospective receipts and expenditures and consequent profits to be derived from a prospective enterprise . . . . throw no light on the issue of market value . . . . It is well settled . . . . that evidence of the character in question is inadmissible. . . . . The admission of evidence which leads to conjectural speculations is equally harmful, whether on cross-examination or direct."

In order to supplement or preface the expert's testimony, it may be advisable to call as witnesses industrial engineers or contractors of wide experience, or both, for the purpose of positively establishing that the particular use, without consideration of which it would be impossible to sustain the appraiser's valuation, is a reasonable and probable use and not merely speculative or conjectural. In the Goodsell case,[4] the valuation placed on the property by the condemnee's experts could be sustained only on the assumption that the property was reasonably and practicably adapted to spur-track industrial uses. Of course, the real estate experts could and did testify that this use was a reasonable one; but the experts on the other side testified exactly to the contrary, and their valuation in turn could be considered reasonable only if the industrial use were purely speculative and conjectural. Foreseeing this impasse, the condemnee, before producing any expert testimony as to value, placed on the stand an eminent industrial engineer who not only testified that the property could be used for spur-track industrial purposes, but showed why and how it was peculiarly adaptable thereto. The condemnee then called a prominent contractor, who testified to the cost of reducing the property to grade and of making spur-track facilities available. There is no doubt that it was largely due to this testimony, which the condemnor did not and probably could not refute, that the jury was led to give greater weight to the testimony of the condemnee's experts than to that of the experts for the condemnor.

The element of reasonable time within which to find a purchaser is obviously of considerable importance. It is not what the owner could realize at a forced sale, but the price that he could obtain after reasonable and ample time, such as would ordinarily be taken by an owner to make a sale of like property.

It has already been pointed out that it is not permissible on direct examination for the expert to testify to prices paid or offered in particular transactions, even though they involve adjoining lands of like quality and location. Granted that this is unrealistic, it is nevertheless the law. Of course, what actually happens is that, under the guise of cross-examining the expert on his qualifications, each counsel gets before the jury other prices in

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[3] Lewis, John, *A Treatise on the Law of Eminent Domain in the United States* (Chicago, Callaghan & Company, 1909), § 706.

[4] *People* v. *Goodsell*, one of the more important eminent domain cases arising from construction of the San Francisco-Oakland Bay Bridge.

other sales — the condemnee emphasizing high prices and ignoring low ones, and the condemnor doing just the opposite. Remember this, however: that it is *not* permissible to base your valuation on your knowledge of other sales, especially sales to the condemnor; knowledge of other sales is merely a part of your general background enabling you to qualify as an expert.

HYPOTHETICAL QUESTIONS

Perhaps you have wondered why hypothetical questions are used in the examination of expert witnesses. In the hands of an inexperienced attorney the hypothetical question is likely to be confusing to court, jury, and witness alike. And yet this need not be so. Behind every conclusion or opinion are certain premises or assumptions upon which the conclusion or opinion is founded; change these, and even the one who has expressed the opinion might arrive at an exactly opposite conclusion. To put it another way, the soundness of an opinion must depend upon the soundness of the premises underlying it. Almost every case involves conflicting testimony as to facts. Where the expert has had personal observation of the facts upon which he bases his opinion, these facts may be stated by him either upon direct examination or upon cross-examination, or not at all. But if he has not had any personal observation of the facts, and forms his opinion merely upon testimony heard in court or otherwise intimated to him, it would be impossible for the jury to determine upon what data or assumptions the expressed opinion was based. Therefore, in the latter case, it is necessary that the data be specified; and not only that, but specified hypothetically, since it cannot be determined during the trial whether the jury will accept the data as true. This enables the jury to reject the opinion upon either one of two bases. They may reject it because they do not believe the conclusion follows from the premises, or they may reject it because they do not believe that the premises have been established by the evidence.

In condemnation proceedings the valuation expert has generally had an opportunity to make a personal inspection and examination of the condemned property before testifying, and, where this is true, the opinion as to value may be elicited without the use of what is a hypothetical question in the technical sense of the word, although the question asked (as already noted) usually contains certain phrases embodying the fundamental idea of market value. Even in condemnation suits, however, the opportunity for examination of the property to be valued is not always at hand. And in other types of litigation—for example, in suits involving property insurance where the property has been destroyed—this situation frequently arises. When this is true, the expert's opinion must be ascertained through the use of the hypothetical question, and it is most important that the form of these questions be carefully worked out in advance by counsel and expert collaborating. Above all, the questions must be clear and understandable by the jury. Care should be taken that they do not embody any assumptions upon which adequate and satisfactory proof will not be presented, either by the expert if he has the requisite knowledge or by other evidence where necessary. It is not required, nor is it usually advisable, that all of the points upon which the expert's opinion is wanted be embodied in a single question; a series of questions may be more practicable and more easily understandable — and, hence, more effective. When these simple principles are understood, there is no need for the expert to fear the hypothetical question, provided the general outline of the questions to be used is gone

over with the attorney before the trial.

It is generally desirable, after the expert has expressed his opinion, for his counsel to ask questions which will permit him to explain fully the reasons for his opinion. This is specifically permitted by the California Code of Civil Procedure. To wait for opposing counsel to give the witness opportunity for explanation on cross-examination is dangerous practice because the opposing counsel may be smart enough to see to it that the opportunity never comes.

CROSS-EXAMINATION

A few words on the subject of cross-examination, that two-edged sword of exceeding sharpness, may not be amiss. It goes without saying that if you are unprepared or if your conclusions are unsound, you are particularly vulnerable to the cross-examiner. Obviously, there is no substitute for adequate preparation and tenable opinion. But even granting these qualifications, you can still "be had" if you are overconfident or noticeably partisan. Always give the opposing counsel credit for knowing his business; if he does not know it, so much the better. The old saw, "Shoemaker stick to your last," could profitably be impressed on the occasional expert who thinks he is wiser in courtroom tactics than the cross-examiner, or who tries to supplement the activities of his own counsel by expressing, while on the witness stand under cross-examination, his ideas of the propriety or impropriety of the questions asked him.

Do not be led into assertions as to which you are not entirely sure; if necessary (but only when necessary), qualify your answer by stating that you are not sure. If you do not know, say that you do not know. If you are asked to express an opinion on the correctness of written data, be quite certain that counsel is actually reading what he wants you to think he is reading; otherwise you may find yourself in the position of having agreed with something that was never said, and this is embarrassing whether the statement with which you agreed is true or false.

It is no crime for you and your counsel and your common client to have conferred often about the case; indeed, it would be a crime if you did not do so. So do not hesitate to admit it frankly if asked.

Remember that there are two sides to every argument and that there are some facts in every case which will tend to support the opposing position. When you are asked about these facts, be willing to disclose and admit them fairly and fully. Not to do so may prejudice your case far more than the facts themselves. Bear in mind that you are not a partisan, that you have no further interest in the final outcome of the litigation than has the court or a member of the jury, that you would have been compelled to testify exactly as you have testified regardless of which side employed you. And finally, be polite and courteous at all times, little though opposing counsel may deserve it in some cases.

WHY DOES "VALUABLE" LAND LIE IDLE?

SPENCER HEATH

WHY is land not occupied, and why does rent not rise in proportion to the amount of public services provided in the different parts of a community? If two or more sites are equally well served, how can it happen that one of them is used and improved and yielding a large amount of rent, while the others remain unoccupied and yield no revenue at all in exchange for the like and equal public services supplied to them? Why is not the entire area of a community developed and occupied and improved evenly, or in proportion to the amount of municipal services provided in its different parts and localities?

In asking these questions it is unconsciously assumed that there is or will be an equal demand for public services in all parts of the community, or at least that the demand for these services will exist in the same proportion as the supply. It must be remembered that the value (not utility) of any service or commodity depends upon its *exchangeableness*, which is to say, upon the amount of *demand* for it; and this does not mean mere desire, but the amount of other services or commodities[1] that are offered and can be obtained in exchange.

There can be no doubt but that the total of ground rent that the land of any community actually yields to its owners is the total present exchange value of all of the public services that all of the land receives. The question is: How does it happen that this total rent is collected from only a portion, often less than one half, of the area, even though it be a small community and all of its parts be about equally well served with police, fire, water, sewers, parks, schools, and other community services? The answer is that there is an outlay of capital in municipal enterprises beyond the economic capacity of the people of the community to use it and to *pay* for its use.

Although in the entire absence of community services no property could be owned or any wealth produced or exchanged, still the amount of production possible in the community is severely limited by the manner in which the public services, *as a whole*, are conducted. It is only the *net* services that remain after all *disservices* have been deducted that can be taken into account as creating land value. The positive services just enumerated are to a great extent offset by the disservices that public servants and authority carry on. These disservices or negative services consist almost entirely in the seizure of property by taxation or other penalization of the ownership and exchange of goods and services, and this, together with its grave indirect effects of limiting business operations and volume, must be set off against all of the real and positive services the community receives. Only thus can the net, that is, the *real*, amount of public services be ascertained. This, of course, cannot be arrived at by any computation, but, in a very definite and practical way, the population shows exactly what the net value of the public services is by the amount of ground rent that it pays in exchange for them, plus the amount of ground rent that landowners who are also occupiers could command.

GROUND RENT IS BUSINESS INDEX

Since the public disservices that limit business are exactly the same disservices

[1]Usually represented by money or credits which entitle the holder to receive the services or commodities.

that limit rent, it may be said that the ground rent is the index of the amount of business that can be done in any community. The volume of business that can be done and the volume of income to land are both directly limited by the taxation and similar disservices that reduce the value of land. Rents are low for the same reason that business is poor. It is obvious to all that what raises business raises rents. It should be equally clear that whatever reduces business reduces rent also. Both depend at all times, other things being the same, upon the excess of public services the community can enjoy above the public disservices that it must endure. When this difference is large, production increases and rents rise. When it is small, business breaks down and little rent is paid. When there is no difference, business and rent both disappear. The historian, Edward Gibbon, cites graphically how Roman taxation canceled the benefits of Roman protection so that in hundreds of Gallic cities the populations disbanded to join the barbarians and became, as he says, more barbarous than they.

Since, therefore, the amount of rent collected and the amount of business that can be done is so rigorously limited, the question of why "valuable" land lies idle is not far to seek. It is simply that, if the limited amount of business were to be spread out over the whole community, it could not be done efficiently. If, for example, the other tax-burdened business in a town can support no more than one hotel, that hotel will occupy and pay rent for only one of two equally available sites, each of which could well be occupied by a hotel if twice as much business were being done. The hotel could not be conducted at all if its limited amount of business were compelled to be spread out over all of the sites equally suitable for a hotel, even if it paid for all of the sites taken together only the same amount of ground rent that it now pays for the one. The same is true of every other kind of business. The town simply cannot make use of all of its streets and other public services and improvements upon the restricted amount of business that its inhabitants are permitted to carry on. The "valuable" sites are not idle because the rents that are paid are so high, but because, business and production being restricted, rents and land values, in the aggregate, are so low.

If, without any relief from taxation and its attendant evils, the business of the town, county, city, or state could be forced to occupy more land than it now does, then this business would be done less efficiently and would pay, not only less wages and profits, but also, in the aggregate, less ground rent. Any attempt to "*force* idle land into use" by levying taxes nominally upon it or upon its supposed value would, in fact and in reality, only impose a further burden on the production of wealth upon the land that is now being used, for out of that wealth the new taxes would have to be raised. The supposed tax on idle land would be really a *further tax on wealth* and would have, therefore, precisely the contrary effect from that intended, for the increased burden of taxation upon wealth would further reduce production and thus throw still more land and its public services into idleness and out of use.

Business and production consist in *voluntary* exchange for mutual profit. Exchanges cannot be compelled by taxation or otherwise forced. On the contrary, taxation of wealth and on the use of wealth, including prohibitions and penalties, is the only force by which business can be prevented and land thrown out of use and out of revenue and its value destroyed.

PUBLIC DISSERVICES CAUSE IDLE LAND

Much land lies idle, then, in a community having public works and services, not

because of any perversity on the part of landowners, but because, under the public disservices (of taxation and the like) to which the community submits, only a limited amount of business and production can be carried on, and under these conditions the restricted amount of business, if spread over a larger area, would be less efficiently done; and, if spread over the *entire* area, probably could not be done at all. This is why only the land that is occupied and used yields any rent or has any income value and why so much so-called "valuable" land is out of use, and therefore out of value, in any but an imaginary and a speculative sense of the word.

What has been said of idle land is, of course, equally true with respect to idle buildings or other capital improvements on real estate. The capital thus invested yields little or no returns, not because of any defect or deficiency in the capital itself or on the part of its owners, but the same unwise conduct of public affairs in ways that make it unsafe or unprofitable to use land also makes it unprofitable to use the improvements that exist upon the land. Whenever the forces tending to restrict production tend to outrun production itself, then there is necessarily a decline in the use and occupancy of improvements on land. This causes existing capital improvements, in a large measure, to fall into the same general category as idle lands—and from the same general causes.

It may be added that transactions in *idle* land are transactions in hopes and fears, and not the doing of any business in the sense of creating and exchanging wealth or services. Such speculation neither increases nor diminishes wealth.

GROSS EARNINGS AS A GUIDE IN FARM APPRAISALS

CHARLES L. STEWART

GROSS income from farm production has never failed to be of interest in gauging the significance of agriculture viewed in bulk for the nation, the state, or any civil division. Those interested in marketing farm products and in selling to farmers, as well as those interested in preparing the products of agriculture for resale to farmers and others, are naturally interested in rating townships, counties, districts, states, regions, or even nations upon the basis of gross production and in comparing one year or series of years with another so as to determine the trends.

In the more refined statistical practices of recent years since farm accounting studies have been more effective, the situation of the individual farm, field, and enterprise has been examined as with a microscope. These studies have been a source of notable increase in the understanding of the interior economy of farms. Farm operators have profited by noting what others have achieved with their outlays of cash and other inputs in using land under various patterns for crop and livestock production. Farm appraisers naturally have reached for all such information with eagerness and used it assiduously.

In Switzerland, where detailed farm accounting has progressed under remarkable stimulus for several decades, there is an ingenious combination of the use of the "microscope" of detailed accounting with the "telescope" of emphasis on gross income that may well have more attention in the United States. The American appraiser should be sure that he is rendering unto gross earnings that great importance that belongs to gross earnings, while also making certain that he loses no track of any important internal facts that farm accounting reveals.

In calling for full consideration of gross earnings where an appraisal is made, not so much for safety in a loan or possible profit in purchase by a client, but for long-time accuracy and soundness in relation to other pieces of property, this article may seem to be suggesting that results of the "microscope" be disregarded. Nothing could be farther from the author's intention. In Switzerland,[1] it is a necessary first step for the appraiser of a farm to learn about its soil types, location, size, pattern of land use in crop and livestock production, and other characteristics in order to place the farm in its proper pigeonhole in a series of vertical and horizontal classes. Once the farm is classified, it becomes practical, by reference to historical series of farm account records for farms *of that class*, to know what costs have been in relation to gross income from production, what net earnings have been, and other pertinent facts. After the farm is classified, the accumulated background of information about many farms of that same size, location, soil-type rating, and land-use pattern becomes effective. The farm in question, if it can be placed in its proper classification, can be assumed to have been as productive of gross and net income in the preceding two or three decades as the mass of other farms of the same classification. This is a practical way of making allowance for typical management, a problem that presses appraisers in the New

[1]The Swiss system is based largely upon the work of Dr. Ernst Laur, whose writings on this subject include *Der Ertragswert der Liegenschaften*, Fuehlings Landwirtschaftliche Zeitung, 1912 No. 21, and *Die Schaetzung des Ertragswertes von Landguetern nach dem Rohertrage des Landwirtschaftliche Betriebs*, Archiv fuer Exakte Wirtschaftsforschung, 1912, p. 231.

World no less than the Old. Where there is sufficient background in statistics to obtain a typical ratio of expense to gross income for a farm properly classified, the problem remains mainly to obtain an accurate picture of the gross income for the individual farm.

Enough investigation has been carried on in the United States to give an insight into the feasibility of determining expense ratios for farms of various classifications. It has been done with systematic coverage and continuity in some portions of some states, but not with enough system from the standpoint of areas and periods for the country as a whole — at least not for the purposes in mind here. Even in the absence of long-time expense ratios for all types of farms of all sizes and locations on all manner of soil types, one can look, doubtless with wistfulness, to certain mass relationships between gross incomes and real estate values and wonder whether the next generation will be able to make its retrospect with more systematic insight into the statistics this generation is leaving behind it than we are able to do with reference to those available for the last four decades of the nineteenth century and for the period from 1912 to 1939. Inspecting these two nation-wide series of statistics will reveal some facts interesting not only to appraisers who see values as dynamic rather than static, and as regional and local rather than universal, but also to persons interested in the geography and history of American agriculture in its farm management and real estate aspects. Some insight is afforded here into what Professor Brinkman, of Germany, might call the "farming intensities" of the various parts of the United States. In an attempt at a generalization for Europe, he referred once to the factors of differentiation and orientation of farming intensities under four heads:

1. The economic location of the farm.
2. The natural conditions (physical productivity) of the farm.
3. The stage of development of the social organization.
4. The personal qualities of the entrepreneur.

It is possible that in the following generalized picture of the relation of gross earnings to real estate values, the reader will see these factors of farming intensity in vivid expression as he compares his own state and local area with others in the same and other agricultural regions.

Just to make clear the ratios used in the tables that follow, an illustration may serve. If the value of the realty (land and buildings) of a farm is 4.3 times the annual gross earnings,[2] the gross rate earned is 23.3 per cent; if the realty-products coefficient is 6.0, the gross rate earned is 16.7 per cent. In each case the relation to 100 is evident by multiplying the linked figures.

SOME NINETEENTH CENTURY REALTY-PRODUCTS RATIOS

The Federal census reports for 1870, 1880, 1890, and 1900 are a part of an unbroken chain of decennial data on farm real estate valuations from 1850 to 1930 and also include, as did no other reports prior to 1930, data on values of products of the preceding year. How representative was the physical volume of production in 1869, 1879, 1889, and 1899 of the physical volume for the five-year periods 1867-72, 1877-82, 1887-92, and 1897-1902? Also how representative were the prices received by farmers for products for the production year covered by the census of the prices received for products of the other four years in the five-year periods

[2]The reference is to the farm as a whole and without respect to division between landowner and tenant. Other comprehensive expressions that might be used in addition to gross earnings are gross income, gross receipts, gross returns, gross revenues, gross values produced, and gross value product. The value of objects enjoyed directly by families connected with farms, such as farm-grown food, fuel, etc., is usually included with receipts from sales and trades.

indicated? A basis for inferring how representative the gross values produced in the United States in the single year were of the broader periods is shown in Table I.

TABLE I
Data for Adjusting Realty-Products Coefficients from Basis of Single Year to Five Years, Decennial Census, 1869-99

	Production Year Covered by Census[1]			
	1869	1879	1889	1899
Index of crop production[3]				
Year specified	23.63	43.24	52.45	69.05
Five years[2]	23.41	38.16	50.44	66.65
Index of prices of farm products[4]				
Year specified	128.0	72.0	67.0	64.0
Five years	122.6	80.4	72.0	66.4
Ratios, specified year to five years				
Crop production....	100.9	113.3	104.0	103.6
Prices of farm products	104.4	89.6	93.0	96.6
Gross value of farm products....	105.0	101.5	96.7	100.1
Realty-products coefficient				
Unadjusted	3.78	4.61	5.40	3.51
Adjusted to five-year basis	3.97	4.68	5.22	3.53

[1]Census report carries date of year following.
[2]Upward trend, incidental to population growth and other factors, is to be noted, but under the method followed no difficulty arises from this trend.
[3]Chosen so as to include two years before and two years after along with the specified year.
[4]This index, like that of crop production, is from Warren, G. F. and Pearson, F. A., *Gold and Prices* (New York: John Wiley & Sons, Inc., 1935), pp. 31, 48-9.

It appears that in crop productions all four of these years-preceding-census reports were above the average for the respective five-year periods, and most above in 1879 and 1889 when the price index was lower in the years-preceding-census than for the five-year periods. It is indicated that gross values of products for the years-preceding-census might have been above the five-year average in three cases: 1869, 5.0 per cent; 1879, 1.5 per cent; and in 1899, 0.1 per cent. In 1889 the gross values were probably below the five-year average by 3.3 per cent. These factors, plus one other, are properly taken into account in any effort to adjust the realty-products coefficients for the country as a whole or for any part of it.

The other factor referred to is the trend in real estate values during each of the five-year periods. Prior to 1890 there is no annual series of real estate prices with any claim to adequacy for the country as a whole. Even the fact that the national average value of farm real estate was shown to be nearly the same, census after census, from 1870 to 1900, is no proof that there were not significant five-year trends across the production years reported in the census. During this period, new land of superior usefulness was being added to the land already in farms, particularly in states west of the Appalachians. In some states it is but natural that even with falling prices for farm products there should have been rising realty-products coefficients, partly because land values were sustained by other factors besides cash income from production, such as (1) emphasis on home value and the opportunity to own one's job, (2) relatively large investment in buildings and other improvements which are always written down reluctantly, and (3) realization of advantages in lowered cost ratios where a rising tide of population in near-by cities has influence upon production and marketing. In states west of the Appalachians, enlarged scale of operations per man was being realized as a result of availability of improved farm machinery and of inclusion of areas of level fertile land suited to its use.

Thus, the realty-products coefficients are adjusted on the assumption of little change in realty prices in the nation as a whole. It would be improper to be satisfied with an adjustment for an individual state that did not allow for its varying trends in realty values.

The adjusted national realty-products coefficient was higher by 0.64 in 1880 than in 1870, and by 0.61 in 1890 than in 1880. This was a period in which prices of farm products had a long-time downward movement. It is possible that price-maintenance and price-advancing forces

are effective for farm real estate in periods of falling prices for farm products that seem not to be explained solely by the movement in products prices themselves. In some senses the farm real estate dollar and the farm commodity dollar have different behavior. It is, of course, unsafe to generalize too strongly from the figures at hand for the period following the war between the states. The period following the World War remains to be examined with some question as to whether a similar divergence between realty values and products values has been at work.

Before coefficients for any individual state for these earlier dates are given too great dependence (Table II), it should be noted that a single year could be expected to be less representative of its half decade in so far as it concerns physical volume of production, prices of its particular kinds of products, and farm realty prices than might be expected for the nation as a whole. Assuming that the smoothing of coefficients needed in individual states may be considerable, one is still impressed by the general tendency of each state's coefficients to stay in about the same relationship to that of other states in the same and other agricultural regions. State coefficients less than one third as large as the national coefficient were found in states of the lower South and in the Rocky Mountain division. Real estate values, lowered because of the havoc of war, may account in part for the southern situation, and the merely partial realization of cheapened transportation by the aid of railways may have been a factor in the Rocky Mountain states. Coefficients in both groups of states mounted to between one third and one half of the national

TABLE II

Farm Realty-Products Coefficients, Four Decennial Dates, Realty Values for Year of Census Report, and Products Values for Year Preceding, by States, 1870-1900[1]

	Production Year Covered by Census			
	1869	1879	1889	1899
United States				
Unadjusted	3.78	4.61	5.40	3.51
Adjusted	3.97	4.68	5.22	3.53
New England				
Maine	3.08	4.66	4.47	2.60
New Hampshire	3.59	5.63	4.81	3.20
Vermont	4.02	4.95	3.95	2.48
Massachusetts	3.62	6.05	4.54	3.74
Rhode Island	4.53	7.05	5.18	3.65
Connecticut	4.69	6.72	5.30	3.44
Middle Atlantic				
New York	5.02	5.93	5.99	3.62
New Jersey	6.03	6.44	5.49	3.72
Pennsylvania	5.67	7.52	7.60	4.32
East North Central				
Ohio	5.32	7.19	7.88	4.03
Indiana	5.16	5.54	7.96	4.12
Illinois	4.36	4.95	6.84	5.11
Michigan	[2]	5.48	6.65	3.98
Wisconsin	3.85	4.92	6.73	4.36
West North Central				
Minnesota	2.92	3.92	4.77	4.15
Iowa	3.43	4.17	5.38	4.10
Missouri	3.81	3.92	5.70	3.85
North Dakota	4.21	3.97	3.54	3.09
South Dakota	[3]	[3]	4.87	3.33
Nebraska	3.52	3.34	6.02	3.55
Kansas	3.27	4.50	5.89	3.07
South Atlantic				
Delaware	5.72	5.82	6.11	3.71
Maryland	4.82	5.74	6.62	4.00
Virginia	4.11	4.72	6.02	3.14
West Virginia	4.35	6.88	7.43	3.76
North Carolina	1.35	2.62	3.67	2.18
South Carolina	1.07	1.67	1.93	1.86
Georgia	1.18	1.67	1.82	1.76
Florida	1.12	2.73	6.02	1.32
East South Central				
Kentucky	3.56	4.69	5.25	3.10
Tennessee	2.53	3.33	4.40	2.50
Alabama	1.00	1.39	1.68	1.47
Mississippi	1.12	1.46	1.74	1.48
West South Central				
Arkansas	0.98	1.70	2.23	1.70
Louisiana	1.31	1.38	1.57	1.94
Oklahoma	[4]	[4]	[4]	3.76
Texas	1.22	2.61	3.58	2.88
Mountain				
Montana	0.44	1.60	4.07	2.17
Idaho	0.77	1.87	4.53	2.34
Wyoming	0.42	2.24	6.45	2.26
Colorado	1.45	4.99	6.47	3.22
New Mexico	1.19	2.90	4.56	2.06
Arizona	0.58	1.84	6.90	1.96
Utah	1.16	4.20	5.81	3.08
Nevada	0.90	1.89	4.56	2.31
Pacific				
Washington	1.88	3.29	6.10	3.32
Oregon	3.14	4.30	6.09	3.47
California	2.83	4.39	8.01	5.37

[1]Values of farm real estate, June, 1870, 1880, 1890, and 1900, were divided by values of products reported at those dates for the preceding year.

[2]Ratio of 488.6 indicates that tens and units digits were omitted in setting type for either the realty or products values.

[3]Not reported separately from North Dakota.

[4]Not reported separately.

coefficient by 1879. By 1889 the Rocky Mountain states showed coefficients equal to those of the country as a whole. Several southern states, in 1889 and 1899, had coefficients still under 2.0 and thus still under one half the national average. The highest state coefficients were as follows: 1869, 6.03 (New Jersey); 1879, 7.52 (Pennsylvania); 1889, 8.01 (California); and 1899, 5.11 (Illinois). General explanation for the persistence of low ratios in some states and high ratios in others is reserved until after consideration is given to the estimates of annual gross income from farm production and the annual estimates of farm realty value in the period from 1912 to 1937.

COUNTY AVAILABILITY OF FIVE SINGLE-YEAR SERIES

Before turning to the annual data, however, it should be pointed out that the statistics examined above by states are also available by counties. Of more interest to the practical appraiser are the statistics which the census reported by counties and by larger areas for 1929. An illustration of significant differences between areas within a single state is afforded by Illinois, the attention being confined to the 1930 census results. In Illinois the average farm, worth $15,443, had products valued at $2,400. In central, eastern, and northern Illinois were twenty-four counties in which, either because of high realty values or low values of products, the coefficients were between 7.0 and 8.5. In three northeastern Illinois counties—Cook, Du Page, and Lake—corresponding coefficients were from about 10.0 to 11.5. At the opposite extreme in the comparison were eighteen southern Illinois counties in which, either because of low realty values or high values of products, the corresponding coefficients were between 3.0 and 4.5. For the state as a whole, the figures for the single year used stood 3 per cent higher than for the five-year period. While the single year used may show a spread in county coefficients wider than would be indicated if a half decade or more were used, there is no escape from the fact that within the same state there may be a wide range in the coefficients. Again, explanation will be deferred to a later point in this article.

ANNUAL RATIOS BETWEEN REALTY AND PRODUCTS

In 1912-14 the realty-products coefficient for the United States was roughly 5.1. This was followed by a drop to about 3.3 in 1917-19. In 1920-22 the values of products were small compared with real estate values, although the latter began a rapid decline before 1920 closed. In 1921, when the coefficient was highest between 1912 and 1932, it stood at 6.4. From 1923 to 1925 decline was sharp. Ratios of about 3.9 prevailed from 1925 to 1929. From 1930 to 1932 the ratio advanced again, reaching its highest figure for the entire period, as a result of fast decline in values of products with slower decline in the value of the farm realty. The products of 1933, however, were sold so as to constitute about 20 per cent of the value of the real estate — that is, with a realty-products coefficient of 5.0.

Illinois is an example of a state in which the realty-products coefficient in 1912-14 was much above that of the country as a whole; it was about 10.4, or over twice the national coefficient. Overvaluation of farm realty was then prevalent in the state. The coefficient in Illinois shrank to 5.5 in 1919, advanced to 12.1 in 1921, fell to 5.5 in 1929, advanced to 9.0 in 1932, and stood at 5.7 in 1934. While the coefficient for the United States has stood since 1933 at between 80 and 90 per cent of the immediate prewar level, that of Illinois has stood since 1933 at between 50 and 60 per cent of that of the prewar

period. Even so, the Illinois coefficient has continued to be higher than that of the country as a whole, including the more recent years. Does this tend to classify Illinois as one of the states which, after having marked overvaluation of real estate immediately preceding the war and during the war, continued to shed its overvaluation slowly?

While annual figures on relation of realty to products values have some interest when examined for year-to-year shifts, the present connection is one in which averages for groups of years may be preferable. The periods selected for this presentation include 1925-27, 1928-32, and 1933-37; or, if expressed with primary reference to gross incomes, the dates would be one year earlier. From 1924 to date, revisions have been made of the estimated gross income from farm production which are believed to give them a higher degree of reliability than data for any previous periods. Data from the census of 1930 were used by the United States Department of Agriculture for adjusting the gross income figures for 1929, and from the census figures of 1925, 1930, and 1935 for adjusting the realty values. Statistical allowance for products that may have been counted twice, once as grain or other feed and again as products of feeding, have been made with more basis for confidence in the figures for the period since 1924 than before. In any event, there is warrant in centering attention on the decade and a half beginning in 1924, with its increasing clearance from the immediate postwar influences which can be said to have hardly yet run their full course. The importance of the more recent past for appraisers trying to establish present values that will seem in future years to have been pretty well in line is to be recognized. The decade and a half beginning about 1924 is also interesting because the first nine years were characterized by falling prices for farm products as well as for farm real estate, while the later years had considerable rise in prices.

For each dollar of income from farm production in 1924-26 there was $4.12 of farm realty values in 1925-27. For the half decade that followed, realty values for 1928-32 (incomes of 1927-31), the corresponding figure was $4.36; and for the half decade, 1933-37 (or 1932-36 for incomes), it was $4.70. Realty values had been falling less than gross income from farm production during the first eight years, and advancing too little during the last half decade included, to make that period one of higher average values than the half decade that preceded. With realty values lagging behind incomes, rising realty-products coefficients are to be expected in a period of falling prices of products, just as smaller coefficients are expected in one of advancing prices. It is not surprising, therefore, that the national coefficient for the later five-year period is about one eighth larger than that for the three-year period ended five years before. If the decade 1933-43 proves to be one of rising prices throughout, with the exception of the 1938-39 decline, it would be equally natural to expect a downturn in the national realty-products coefficient.

GEOGRAPHIC DIFFERENCES IN RATIOS AND RATIO TRENDS

The number of dollars of farm realty values per dollar of gross income from production in 1933-37 was over three times as high in some states as in others. (See Table III.) For example, in North Dakota, South Dakota, Nebraska, and Kansas realty values were from $6.82 to $8.18 per dollar of gross income from production during those five years, as compared with $5.42 to $6.10 during the five years preceding. Drought conditions during the latter half of the decade were doubtless more effective than during the earlier half in

cutting down income from production, and, with land values reflecting only a part of this diminution in incomes, the ratios went very high.

Another region in which realty-income ratios stood well above the national average during the three periods studied is the group of states including Illinois, Wisconsin, Minnesota, and Iowa. Here it is to be assumed, as in the more fertile parts of other states contiguous to those four states, that the capacity for high and reliable yields is a function of exceptional fertility of soil and favorableness of climate, which has exercised sustaining influence on the ratios by keeping land values high even during an extended period of fallen incomes. Much of the nation's most fertile land is concentrated here, and the belief that the premium value of superior land would continue large, even if much inferior land must be put out of intensive or even moderate use in farm production, has doubtless kept many supposing that land investments may here be made with most faith in the long future. It is to be noted also that mechanization has gone far in these states to make costs low in relation to gross production. Thus, though the gross production per acre is low in comparison with some other parts of the country, the net product is relatively high. Rate of return required on capital in recent decades has been low in this region by comparison with most regions south and west of this part of the country. High ratios of realty values to gross incomes have been a natural result.

Whereas during the period 1933-37 the ratios in the Great Plains states stood from 146 to 175 per cent of the national ratio, there were southern states in which they stood only about one half as high as the national average. Ratios in the Great Plains states were much nearer the national averages both in 1928-32 and in 1925-27. In eastern and Delta cotton states, however, ratios were between 40 and 47 per cent of the national ratio in 1925-27, the period in which four of these states—Alabama, Georgia, Louisiana, and Mississippi—showed only between $1.64 and $1.96 of realty value for each dollar of gross income from farm production. Ratios low in relation to the national ratio persisted in these states through both halves of the succeeding decade.

TABLE III

Farm Realty-Products Coefficients, One Three-Year Period and Two Five-Year Periods, with Products Values for Year Preceding, by States, 1925-37[1]

	Production Years Covered by Estimates		
	1924-26	1927-31	1932-36
United States	4.12	4.36	4.70
New England			
Maine	2.28	2.55	2.73
New Hampshire	2.80	2.77	3.45
Vermont	2.54	2.73	3.12
Massachusetts	3.37	3.35	4.26
Rhode Island	2.86	3.51	4.28
Connecticut	3.45	3.86	6.49
Middle Atlantic			
New York	3.30	3.33	3.74
New Jersey	2.54	2.95	2.94
Pennsylvania	3.46	3.62	3.73
East North Central			
Ohio	4.34	4.50	4.72
Indiana	4.52	4.46	4.65
Illinois	6.42	6.11	6.03
Michigan	4.14	4.29	4.39
Wisconsin	4.66	4.26	5.01
West North Central			
Minnesota	5.09	5.07	5.16
Iowa	6.68	6.08	5.86
Missouri	4.42	4.65	4.66
North Dakota	3.74	4.74	8.18
South Dakota	5.73	5.73	8.04
Nebraska	5.93	6.10	7.26
Kansas	4.89	5.42	6.82
South Atlantic			
Delaware	2.88	3.12	3.41
Maryland	3.57	3.99	3.79
Virginia	3.94	4.23	4.35
West Virginia	3.75	4.11	4.48
North Carolina	2.45	2.66	2.48
South Carolina	2.26	2.47	2.47
Georgia	1.96	2.25	2.45
Florida	4.77	3.31	3.16
East South Central			
Kentucky	3.60	4.04	4.30
Tennessee	3.18	3.57	3.92
Alabama	1.64	2.29	2.44
Mississippi	1.64	2.40	2.23
West South Central			
Arkansas	2.11	2.63	2.81
Louisiana	1.87	2.66	2.57
Oklahoma	2.89	4.35	5.05
Texas	3.63	4.61	5.66
Mountain			
Montana	3.26	4.19	5.06
Idaho	3.19	3.80	4.40

Wyoming	3.35	3.86	4.65
Colorado	3.62	4.05	4.88
New Mexico	3.27	3.74	4.72
Arizona	2.88	3.31	3.58
Utah	3.07	3.71	4.58
Nevada	3.31	3.65	4.77
Pacific			
Washington	3.99	4.11	4.02
Oregon	4.76	4.93	5.15
California	5.55	5.35	4.80

[1]Based upon United States Bureau of the Census reports on farm real estate values for census years adjusted to five-year averages by use of United States Bureau of Agricultural Economics annual indexes of farm real estate values. Gross incomes from farm production statistics are from Agriculture Yearbooks of the United States Department of Agriculture and annual mimeographed reports. The assistance of R. J. Mutti, Department of Agricultural Economics, University of Illinois, is gratefully acknowledged by the author.

Reference to Table II will suffice to recall that much the same relationship to the national coefficients existed at the time of the census of 1900 and the three enumerations that preceded it.

Persistence of low ratios in the states of the South lying east of Oklahoma and Texas may be explained by the dominance of cotton and correlated conditions. The gross earnings coefficient of cotton is high—that is, cotton is a crop in which there has been a low net return in relation to the gross income. Land values have not been as high in the southern states as elsewhere, even where net earnings have been the same.

Reasons given for these facts have included the following: (1) slow permeation of low interest rates on money used in land purchase and other agricultural uses, largely because many local areas have been dependent upon outside capital; (2) prevalence of types of farming distinguished by demands upon owners for supervision of tenants and the furnishing of supplies, both of them difficult and hazardous assumptions of risks; (3) differences in real or fancied desirability of various regions from the standpoint of residence, school, market, and other considerations; (4) differences in the effective demand for farm ownership by the mass of persons in agricultural pursuits; and (5) differences in the direction and degree of expected changes in the price of farm real estate.

While the national realty-income ratios were increasing from the earliest to the latest of these three recent periods, there were interesting differences in trends between different parts of the country.

In four states there was an equally consistent shift downward in realty-products coefficients while the national coefficient was going upward. These are California, Florida, Illinois, and Iowa. In Florida the number of dollars of realty value per dollar of gross income from production decreased from 4.77 to 3.16, or to 66 per cent of the earlier figure. This was probably due in considerable measure to bursting of real estate speculative bubbles in Florida, a condition which applied in less marked degree to the other three states as well. The ratio in Florida was above the national average during only the 1925-27 period. The marked increase in the extent to which horticultural and other high-expense products have come to figure in gross income in Florida and California must likewise help to account for the trend toward lower realty-income ratios in those states. In California, Iowa, and Illinois, in spite of a persistent decline in the ratio, there was no falling below the national average in the periods studied. Iowa and Illinois have, in fact, remained markedly above the national ratio.

CONCLUSIONS

1. A long swing in prices of farm products must be expected to be accompanied by less change in farm realty prices and, therefore, by a change in the realty-products coefficient. During two periods of falling prices, one of them covered in part by data for 1869, 1879, and 1889 and the other covered in part by data for 1924-31, the coefficients for the country as a whole advanced. In the early period the coefficient was nearly 4 in 1869 (3.97) and nearly

5¼ (5.22) in 1889, an advance of about 0.62 in a decade. From 1924-27 to 1928-32, a half decade, there was an advance of 0.24, and from 1928-32 to 1932-36, a half decade, the latter part of which could be regarded as in at least a short-time upward trend, the advance was 0.36. If the prices of farm products, which declined three decades after 1865, decline in the main from 1920 to 1950, it would not be surprising to see the realty-products coefficient advance about 1.75 to 1.85.

Swings upward in prices of farm products have generally occupied about two thirds as much time as those downward and, consequently, have been about 50 per cent steeper. Thus, it would not be surprising to find prices of farm real estate lagging so much that the realty-products coefficient would drop possibly 50 per cent faster per decade or half decade than the usual amount of rise under reverse conditions. It is to be noted that in 1899-1900, the fourth year of rising prices after the low point in the 1890's, values of products and real estate had a ratio lower than either ten, twenty, or thirty years before. From 1889 to 1899 the drop in coefficient was 1.69. Unfortunately, we cannot feel so secure about the coefficients for the period 1912-20, but there was evidence of decline. Since 1933 there is further evidence of declining coefficients. For 1937 and 1938 products and 1938 and 1939 real estate, the national coefficient was about 3.75 as compared with 4.36 in 1927-31. If products values continue to advance, it will be natural to expect continuation of low ratios for 1937-41. It should be made clear that these ratios would be still smaller if Federal rental and benefit payments were included. Since yearly appropriation acts support these payments, it is not to be expected that realty values would reflect them to the same degree that has applied to values based upon receipts from sale of products.

2. Departure of regional trends in realty-products coefficients from the trend in the national coefficient may be the occasion for some concern. Drought reduced the values of products much more than the values of real estate in states from North Dakota to Kansas in 1931-36. If drought in the same degree were to become chronic, the high realty-products coefficients would have to subside through reduction in realty prices. Rain can cure the high ratios and may be found to play a more normal part in the period 1936-41. Ratios high in terms of the national coefficient have asserted themselves under conditions suggestive of at least temporary overvaluation of the land. Florida is interesting in this connection. It is possible to examine the high coefficients of Illinois, Iowa, and California with some better understanding as to why their trends moved downward when the national trend moved upward.

3. Regional, state, and local coefficients different from the national coefficient must be expected, and changes in the extent of these differences will doubtless continue. Free land under Federal policy was more of a factor between the 1860's and 1880's than since. Unavailability of cheap transportation facilities in western states may have repressed values of real estate more than the values of products at that time. In southern states, factors keeping real estate low in relation to values of products point to the products themselves—they have high expense ratios per dollar of market value—also to the low capacity of many in the farm labor and tenant population to get enough ahead to make down payments and also to the heavy claims upon income for outlays for fertilizer, structural improvements, and personnel support which have burdened those who own and operate land in much of the South. In the first census immediately after the war between the states, ratios

may have registered especially low because war havoc was still heavy on real estate values.

Dynamic changes in coefficients may develop in the future no less than in the past. Failure to lower costs as rapidly as values of products, and possibly the coming of advances in such values more rapidly than in costs, may characterize any agricultural region or any farming-type area. Effects on values incident to urban enlargement, cheapened transportation, development of mineral resources, and other changes will doubtless be reflected in the coefficients of the future.

4. Realty-products coefficients, observed in the above treatment for all the farms in the country as a whole and in the individual states, merely arouse an appetite for more highly classified and localized analysis. Whether the 1940 census will open the door to such an analysis remains to be seen. The census enumerations of 1900 and 1930, each in its own way, gave an insight into the extent to which the coefficients differ among farms of various types. The principal source of income was shown for farms upon the basis of 1899 products. For fruit farms the realty-products coefficient was 4.9, while for cotton farms it was 1.6. In between these extremes stood hay and grain, 4.4; vegetables, 4.1; dairy products, 3.9; livestock, 3.5; flowers and plants, 2.6; tobacco, 2.5; rice, 1.9; and nursery products, 1.8. The 1930 census, in its much more refined type of farm-type analyses, presents figures from which it is possible to note the following realty-products coefficients: cash-grain farms, 6.0; self-sufficing farms, 5.7; fruit farms, 5.2; abnormal farms, 4.9; general farms and animal-specialty farms, 4.7; stock ranches, 3.9; dairy farms, 3.7; truck farms, 3.4; crop-specialty farms, 3.1; poultry farms, 3.0; and cotton farms, 2.8. These differentiations are of restricted dependability because the values of only a single year are included. Obviously, no single year can show conditions normal for every part of the country, for every type of farm, and for each size and tenure classification. If studies could be repeated yearly throughout three-year or five-year periods, and if expense-ratio and other internal analyses could be combined, it would seem that two things essential to effective use of realty-products coefficients would be gained. These are (1) the basic information for determining what these coefficients have recently become for each type of farm, size, location, and other characteristic essential in sharp classification and (2) the internal information for a considerable sample of farms that would be taken into account in a full setup of facts in which gross income from production would be given a place of consideration in relation to expenses and other items.

No one feels satisfied with merely computing value from what a property grosses unless he knows what quite similar properties have been netting; but once the expense ratios have been established for each class of farms, from there on multipliers that can convert gross earnings into probable market prices directly, while larger than the multipliers for converting net earnings, may be quite as useful.

CAPITALIZATION RATES

CHARLES F. CURRY, M.A.I.

THERE are two governing factors in the income-capitalization approach to the determination of property value—the *stabilized net income* and the *capitalization rate*. Upon the accuracy of these two factors depends the accuracy of the whole capitalization process. Variation in either factor produces corresponding variations in the resulting valuation, and, while both of these factors must be determined by the appraiser from and after a detailed study of all the pertinent factual data, yet the final determination of the figures to be used in both cases rests upon the judgment of the appraiser.

We all recognize that the stabilized net income is a matter of judgment on the part of the appraiser. But because it is a judgment based upon an analysis of property facts with which we are familiar, it is accepted as a fact determined by the appraiser rather than a matter of judgment. The rate of capitalization used is also a matter of judgment on the part of the appraiser. But because it is a judgment based upon market facts with which we are somewhat less familiar, we are inclined to regard the capitalization rate as more or less of a guess, which too frequently it is. The rate of capitalization is determined by market conditions just as much as the rental value of space. It is because we have more contact with rental conditions that we feel more certain about the rental figures we use.

We shall not present here any academic discussion of interest rates and all the ramifications of values and prices and money. Volumes have been written on the theories surrounding these various factors, and those desiring to delve into these economic theories can find plenty of authorities to peruse. The purpose of this article is to present a few rather basic and elemental concepts as to how we as appraisers should properly determine capitalization rates.

We recognize that improvements on land have a consuming value and a definite life. But there are many properties which, through continual improvements and modernization, have a sufficiently long life so that the income from the property, when proper deductions are made for maintenance and depreciation, may be regarded for all practical purposes as an income in perpetuity. Therefore, for the purpose of illustrating capitalization methods and for the purpose of avoiding involvement in other complicated problems of the capitalization process, we shall consider for the moment the determination of capitalization rates for property on which the net income might be considered as in perpetuity.

THREE APPROACHES TO DETERMINATION OF RATE

There are three general approaches to the problem of the determination of capitalization rates. We have, first, the comparison approach, which consists of determining the capitalization rate for similar properties which have been sold or are offered on the market. Second, we have the competitive investment approach, which consists of determining the going capitalization rate for investment in other fields with comparable hazards. Then we have what we might call the composite approach, which consists of determining the capitalization rate by the summation of the capitalization rates for the various risks involved. It is interesting to note that these three approaches are very similar to two of the general approaches to

the valuation process. The comparison approach is almost identical with the comparison approach in the valuation process, and the competitive and composite approaches are similar to the reproduction-cost approach.

In the comparison approach to the determination of capitalization rates we first determine the stabilized net income of properties being offered for sale. By dividing the stabilized net income by the selling or offering price, we determine the going capitalization rates for these various properties. By grouping and analyzing the various properties and averaging their respective capitalization rates, we determine for a particular class of property the approximate market capitalization rate—we call it "approximate" market rate because the market is a continually changing factor, and all we can determine is a rate which, within reasonable variations, will express the current rate. If we collect sufficient data upon the subject and analyze a sufficient number of properties, we can determine this market capitalization rate with reasonable accuracy.

In the competitive approach we must determine the going capitalization rate of investments in other fields. Real estate as an investment is in competition for the investor's dollar with all other forms of investment. Real estate cannot expect to attract capital at any lower rate of return than that which capital can obtain in other forms of investment where the risks are comparable. We must, therefore, in order to determine the capitalization rate for any given property, determine the rate capital can earn in other investments with a similar amount of risk. We must determine what return is being received on equity stocks in sound, dividend-paying corporations. We must analyze from current market quotations the going rate of return for various groups of industries and various classes of stocks. From these figures we can form a general pattern of the present market rates. By classifying these investments according to their risk, we can arrive at the going market rate for investments with comparable risks to the property under study.

The composite approach is closely related to the competitive investment approach. In this case, however, we approach the problem by first determining the proper rate of return for the various component parts of the risks involved; then the summation of these component rates is the final capitalization rate.

We shall discuss two general methods used to do this—that used by George L. Schmutz, M. A. I., of Los Angeles, and that used by Thurston H. Ross, M. A. I., also of Los Angeles.

SCHMUTZ CONCEPT

Schmutz, in his concept of the capitalization rate, divides it into four component parts, as follows: (1) safe rate; (2) risk rate; (3) investment rate; and (4) penalty for nonliquidity.

He then determines independently the proper rate which each of these four items should bear and uses as his over-all capitalization rate the sum of these four rates. In determining each of the component rates it is necessary to compute them both from the comparative and competitive standpoint.

The safe rate is the rate that can be earned over a long period of time with absolute safety and is the going rate for government bonds. It is the rate of increase in national wealth that finally determines the safe rate as it cannot exceed the annual rate of increase of the total wealth of the nation. At the present time this rate is around 2½ per cent.

The risk rate is determined by an analysis of the various factors that go to make up the stability of the income of the property. Schmutz has made a very inter-

esting analysis of the various factors that affect the risk rate. For the purpose of illustrating how this rate may be determined, his risk rate table is reproduced here.

AN ARBITRARY RISK RATE TABLE FOR LAND AND BUILDING AS A UNIT

	Matters Affecting the Risk	Risk Rate Components of Capitalization Rate	
	Inherent Factors		
a.	Class of improvement	0.5% - 1.5%	
b.	Appearance of improvement	0.0% - 0.5%	
c.	Responsibility of tenant	0.0% - 1.0%	
d.	Ratio of net to gross income	0.0% - 2.0%	
	Environing Factors		
	Economic conditions affecting the property		
e.	Static	0.5% - 0.5%	(use one)
f.	Improving ..(minus %)	—0.5% - 0.5%	
g.	Declining	1.0% - 2.0%	
	Location (neighborhood)		
	Stabilized		
h.	Good area ..(minus %)	—0.5%	(use only one fig.)
i.	Fair area	0.5%	
j.	Bad area	1.0%	
	Improving		
k.	Good area ..(minus %)	—1.0%	
l.	Fair area....(minus %)	—0.5%	
m.	Bad area	0.0%	
	Declining		
n.	Good area	1.0%	
o.	Fair area	2.0%	
p.	Bad area	3.0%	
	Future changes toward:		
q.	Incongruous property use	1.0% - 3.0%	
r.	Undesirable users	0.0% - 4.0%	
s.	Lack of restrictions or zoning	1.0%	

RISK RATE FOR A HYPOTHETICAL PROPERTY

		Risk Rate	See Chart
1.	One-story commercial property, outlying district	+1.0%	line "a"
2.	Appearance of building is only fair	+0.3%	line "b"
3.	Tenants are small merchants, responsibility fair	+0.5%	line "c"
4.	Economic, or general business conditions improving	—0.5%	line "f"
5.	Neighborhood built up, static, fair purchasing power	+0.5%	line "i"
6.	Possibility of inharmonious usage of district small	+1.0%	line "q"
7.	Possibility of undesirable persons or users moving in small	+0.7%	line "r"
	The Total Risk Rate	+3.5%	

The investment rate is sometimes referred to as the management charge and is the amount of return that should be credited to supervision. This varies in accordance with the character of the property and local conditions. Usually this rate runs from a negligible per cent on properties under well-secured leases to about 1 per cent.

The penalty for nonliquidity is the rate that is required in order to justify an investment that cannot be quickly marketed without the possibility of a loss. This rate also varies in accordance with the conditions of the particular property and usually is taken at about 1 per cent.

Assuming the hypothetical property used by Schmutz in illustrating his table, we have the over-all capitalization rate as follows:

Safe rate	2.5%
Risk rate	3.5%
Investment service rate	1.0%
Nonliquidity rate	1.0%
Over-all capitalization rate	8.0%

ROSS CONCEPT

In the Ross concept the capitalization rate is determined from an analysis of the various rates at which loans for different per cents of the total investment can be made. This concept is sometimes referred to as the investment band theory of capitalization rates. In the computation of the over-all rate the going rates for first and second mortgages and equity investment are computed and a summation made of the component parts. The accompanying table gives the over-all rates on a property where the equity investment is taken as 25 per cent and the total of first and second mortgage financing at 75 per cent.

VARIATIONS

Most appraisers use one of these two general concepts or a variation of one of them. John C. Tredwell, M. A. I., of New York City, in an excellent article in the October, 1938, issue of the JOURNAL, has covered the field very thoroughly. He has

	CASE I				CASE II				CASE III			
	% Investment		Interest Rate	% Earning	% Investment		Interest Rate	% Earning	% Investment		Interest Rate	% Earning
First mortgage	40%	@	4%	= 1.60	50%	@	5%	= 2.50	60%	@	5½%	= 3.30
Second mortgage	35%	@	8%	= 2.80	25%	@	7%	= 1.75	15%	@	6%	= 0.90
Equity	25%	@	15%	= 3.75	25%	@	15%	= 3.75	25%	@	15%	= 3.75
Over-all rate				8.15				8.00				7.95

These three tables show the variation in over-all rates with the first mortgage financing at 40, 50, and 60 per cent.

presented his concept of the determination of the over-all rate by breaking it up into three parts, the first two parts, the base rate and risk rate, being only a different grouping of the rates used in the Schmutz concept. The base rate as used by Tredwell is composed of three parts which are almost the same as the three parts used in the Schmutz concept, namely, safe rate, management cost, and nonliquidity. The risk rate is the same as Schmutz's risk rate. The third factor in Tredwell's concept is a market adjustment rate, which is the only added feature over the Schmutz concept, and is either a plus or minus rate depending upon market conditions. The over-all rate is the summation of these three component rates. We believe that this method has an inherent weakness in that the market adjustment rate requires, to a certain extent, knowledge of the existing market rate, which is what the appraiser is trying to determine.

Wallace W. True, M.A.I., of New York City, uses another variation of the Schmutz concept. It consists of a summation of four component parts: (1) safe rate; (2) insurance factor; (3) penalty for nonliquidity; and (4) adjustment factor. In this method the adjustment factor is similar to the market adjustment rate used by Tredwell.

Frank D. Hall, M.A.I., of New York City, uses a method which is a variation of the Ross concept and which has been developed primarily for use in valuing for mortgage-lending purposes. His over-all rate is the summation of two component rates: (1) the base rate, which is the going lending rate for 50 per cent mortgages, and (2) the equity rate, which takes into consideration two factors—a minimum penalty factor and a judgment factor.

It will be noticed that all of these concepts are based upon a summation of rates for various component parts for which rates are separately determined. Which method is used is not important so long as the appraiser is sure of his component rates. The over-all rate should be checked by a computation of several methods.

The over-all rate is the rate of prime importance in any particular problem. The investor is not concerned with how the component parts are divided. He is concerned only with the return on and the safety of his investment. He is not concerned with what part the building might earn or what part the land might earn. Each dollar of his income he regards as income from the investment as a whole. The developer, however, in projecting or developing a property, is frequently concerned with what part of the earnings can be attributed to the various component parts of the project. We all recognize that the developer of a furnished apartment building must receive a higher return on the capital invested in furnishings than on that invested in the building, and the same is true with regard to building and land in most building projects. In determining residential values for land and for buildings for such projects, it is frequently necessary to use split rates—that is, one rate for one portion of the investment and a different rate for another portion. If a rate of 5 per cent is used for the land and

a rate of 8 per cent for the building, the over-all rate, which is the ultimate concern, will vary as the ratio of land to building varies. A fifty-to-fifty ratio would give a 6.5 per cent over-all rate. A twenty-five-to-seventy-five ratio would give a 7.25 per cent over-all rate. So, while the over-all rate is the final governing factor, the use of split rates is frequently necessary in certain valuation problems.

CAPITALIZATION RATES INVOLVING ANNUITIES

The same general concepts and factors that go into determining the capitalization rate for property with income in perpetuity are used in determining capitalization rates for problems involving annuities for fixed periods of time and annuities declining during that time.

We do not believe that any general method or formula of income capitalization can be adopted that will apply to all cases or to cases in general. We believe that the method to be used depends entirely upon the requirements of the particular property being valued. In general, however, we feel that on properties where future income can be determined with relative accuracy, the proper method is to determine the present worth of the future income stream. In order to do this it is necessary to discount the future income at a proper rate. All that has been said before in regard to determination of capitalization rates applies with equal force to the determination of this discount rate. However, in determining the present worth of this future income stream, we must provide for the recapture of the capital at the time the annuity ceases, as well as for interest on the investment during the time.

There are two general methods used to accomplish this. In both methods we deduct first from each year's income an amount which, when set aside in a sinking fund, will equal the original capital at the time the income ceases, and then capitalize the remaining income. In one method the remaining income is capitalized at a different rate than the rate used in computing the amount needed for the sinking fund. The capitalization rate used for the income is the risk rate, and the rate used for the sinking fund is the safe sinking-fund rate. This method is known as the Hoskold method, and the tables developed which give the present worth factors upon this basis are commonly known as Hoskold coefficients. The other method, known as the Inwood method, computes both the remaining income and the sinking-fund amount at the same rate, and the tables developed therefrom are known as the Inwood coefficients.

The method that should be used in computing the present value in any particular problem will depend largely upon the nature of the problem and the desires or purposes of the invested capital. In the determination of market values either method should give the same results if the proper rate factors are used. If the Hoskold coefficient risk rate of 12 per cent and a sinking-fund rate of 4 per cent gives the proper market value of the property, then an Inwood over-all rate of 8 per cent should give approximately the same results. In other words, the risk rates used in the Hoskold process cannot be the same as the over-all rate to be used in the Inwood process.

NO SUBSTITUTE FOR JUDGMENT

It must always be kept in mind that, while tables and formulas are of immeasurable value, the use of them alone cannot insure proper results. The accuracy of the final results depends entirely upon the judgment of the appraiser, for which there can be no substitute.

TRENDS AFFECTING COMMERCIAL AND INDUSTRIAL PROPERTIES

GEORGE C. SMITH

THE SUPPLY of real estate is more or less fixed; only the demand for it is subject to material change. The social, economic, and political forces which affect this demand, and hence determine values, are of vital concern to every real estate operator and owner.

The present value of real property and future increases in value are closely related to the pressure of population. When the nation ceases growing in population, when cities cease reproducing themselves by natural processes, when people can reside in suburbs as conveniently as in congested centers, when industry can operate more advantageously in rural or suburban locations—then these trends which adversely affect population pressures in our large cities will check the once normal rise in realty values, to which we have become accustomed, and begin to destroy values already created.

POPULATION PRESSURES

Nationally, population pressure is determined by trends in birth rates, death rates, immigration, and emigration. But locally, and even in spite of national trends, pressures may be determined by social and economic forces, many of which are capable of elimination or check. Among local trends to be considered are:

1. The urbanization of the area.
2. Opportunities for employment.
3. Local transportation conditions.
4. Comparative taxation differentials.
5. Quality of local government.
6. Civic and social conditions.
7. Opportunities for recreation, education, and personal improvement.

Nationally, these population trends may be viewed with some alarm, particularly by those who expect the nation to keep on developing as it has in the past, with gradual rises in real estate values, checked only by more or less temporary and infrequent periods of depression.

A decreasing birth rate is nothing new. It has been with us for a century. However, its effects have been offset by a decreasing death rate and, until fairly recently, by a large net immigration, which we no longer have. The recent rapid decrease in the birth rate, particularly since the World War, is not as generally known as it should be. For the first time in our history as a nation, our population is not increasing rapidly. For each decade to 1860 we had an average increase of about 30 per cent. The increase fell to 21 per cent for the decade ending in 1900; to 15 per cent for the 1930 decade; and, when the census is taken next year, it probably will show not more than a 7 per cent increase over 1930.

There was an annual increase in population of 1,900,000 in the early nineteen-twenties. This had fallen in the early thirties to 900,000; and at the present time the increase is probably not more than 750,000 per year.

The birth rate had fallen from 37 per 1,000 in 1875 to 23.7 in 1920, and to 16.9 in 1935. Our large cities are not producing their replacement needs. In cities of 100,000 and over, present reproduction will not exceed 70 per cent of the total population for this generation. Assuming no further reduction in birth rates, and left dependent solely upon new births, in two generations our large cities will have not more than 35 per cent of their present population.

This decrease in birth rate is not pecul-

iar to this country. Present rates in other countries indicate that ours may go still lower. In Sweden today the rate does not exceed 14.0 per 1,000 population, as compared with more than 16.0 in our country. In England and France it is 15.0 and in Germany, 17.0. Even in Italy, where large families have been encouraged as a national policy, the birth rate had fallen from 27.0 in 1930 to 23.0 per 1,000 population in 1935.

The causes leading to a decrease in birth rates are not as important as the fact itself. Without attempting to discuss the causes, among them may be mentioned:

1. The lower fertility of urban life.
2. The lateness of marriage.
3. The fact that knowledge of birth control has reached all economic classes and races.
4. Unemployment.
5. The fact that the abolition of child labor in urban activities makes children no longer an economic asset, particularly for old-age security.
6. War scares and war memories.

Offsetting somewhat the decreased birth rate has been the falling death rate. Statisticians in this field believe that with an increase in the average age, due to fewer children, our low limit is somewhere near 10.0 deaths annually per 1,000 population. The rate is now less than 11.0, having declined from 19.8 in 1880 to 17.6 in 1900, 13.0 in 1920, and 10.9 in 1935.

In the early part of the period 1900-1910 our net annual migration gain (excess of immigrants over emigrants) averaged about 1,000,000. From 1910 to 1914 the average was 750,000, which average held also for the first five years after the World War. From 1925 to 1929 the average annual increase by migration decreased to 230,000, due, in part at least, to the operation of the 1924 Quota Law. Since 1930 there has been an excess of emigration, which, while not large, is, after all, a startling change from a net gain of a million newcomers a year, which we had at the turn of the century.

Added to these trends is the fact that American motherhood is not reproducing itself, as the ratio of girl babies born to women between the ages of twenty to forty-five is less than one to each woman, or actually only 98 per cent of unity.

Our ability to reproduce population is affected further by the lower fertility of those being born, particularly in urban centers. New England ceased reproducing in 1880. This trend moved westward as industry and urbanization set in, until today the counties containing one half the population of the United States are divided in this manner: 156 reproducing at a rate below maintenance, and 200 barely balanced.

EFFECTS OF POPULATION DECLINE

Stuart Chase has estimated that there are 1,300,000 fewer pupils in primary schools today than in 1930. Population statisticians estimate a decrease of 3,846,000 in children fourteen years of age and under from 1930 to 1940, and a decrease of more than ten million from 1930 to 1960. The group fifteen to nineteen years old—high school and junior college age—is at its peak, increasing 864,000 in this decade. However, after 1940 this group will decrease nearly two million (1,807,000) by 1960.

Considering the marrying age normally to be between twenty and twenty-nine, this group will reach its peak between 1945 and 1950, with three million more persons of this age in 1950 than in 1930. This should affect favorably the sale of bridal bungalows and the rental of furnished apartments and the like for the next decade.

Even though our national population

will begin to decline after 1960, for the next forty years there will continue to be large increases in our older groups, for it is estimated that those of fifty-five years of age and over, from 1940 to 1980, will increase from nineteen to forty-two million persons. Where these people will locate, with or without Federal and state old-age pensions, what kind of housing they will need, and what effect this large increase in the number of older persons will have upon our industrial structure and upon retail sales, we leave to your imagination. But you can be sure that there will be important consequences. State participation in old-age benefits may limit interstate migration, and those retiring from active life will not all move to California, Florida, or the Gulf Coast.

CITY GROWTH

During the past forty years our national population has increased about 55,000,000. All of this increase was in urban and rural nonfarm population; our farm population during that time remained nearly constant at approximately 30,000,000. Much of the city growth was due to migration from the farm and immigration from other countries. The depression has cut off both sources and, additionally, has caused a migration back to the farm. Add to this factor the further consideration that all classes of city women are losing fertility; it is no wonder that some of our large cities are showing population declines. Most cities are losing population at the center and growing in the suburbs—if at all.

Only in the South are rural areas contributing liberally to city growth. With only 24 per cent of the national population, the South now enjoys 60 per cent of the nation's population growth.

Outside the South, the national pattern of our cities shows a loss in growth ratios, a movement from the central city to the suburbs by both factories and individuals, failure to reproduce sufficiently to maintain population, and, therefore, a downward trend in real estate values, particularly in those parts of the cities where values have been highest, because the pressure of population has been removed.

REMEDIES

This situation suggests several things: *first*, and most obvious to the Realtor and appraiser, is the need for rural and suburban zoning to protect the new real estate values being created in the areas that are developing around our large cities; *second*, the development of neighborhood plans to insure maximum utility of property and safety of investment and also the revision of old city plans; *third*, the checking of municipal expenditures which anticipate growth; *fourth*, the development of plans to stimulate and insure future economic growth.

The latter proposition is particularly significant. It is of importance because city growth can be stimulated even when natural processes have ceased to function. Cities are economic as well as social and political agencies; and it is to the economic side that stimulation can be applied, vigorously and positively, provided the economic structure withstands investigation and the political situation does not present offsetting handicaps.

Cities grow usually because of the acquisition or development of employment opportunities. These may be created through the establishment of political institutions, commercial structures, or industries or, to some extent, through the development of service, recreational, or other facilities. Even climate has been advertised and otherwise exploited to build some great cities.

Commercial development usually follows, rather than leads, city growth, for commerce itself cannot support a large population. Yet we see this year two of our greatest cities, New York and San Francisco, applying commercial stimulation through their World's Fairs, much in the same manner that other cities do through convention and tourist bureaus.

The acquisition of manufacturing enterprises is undoubtedly the surest, most permanent, and most effective method for stimulating city growth. New industrial pay rolls mean new demands for real estate, for merchandise, for the services of local utilities and also for professional and domestic services. In short, they affect favorably and permanently the whole economic structure of the city and contribute to the development of its social structure as well.

There is one more important factor, however, which cannot be overlooked or overemphasized. That is the part played by the local chamber of commerce in selling its community as a location. Industrialists, for the most part, are not experienced in the science of plant location, no matter how efficient they may be as factory operators. Therefore, communities organized to serve industry in this regard can exert an enormous influence by pointing out the unusual advantages they may have to offer and by supplying industry with accurate, authoritative information relating to operating, marketing, and civic conditions, available supplies of raw materials, power, fuel, water, taxes, available properties, waste disposal, and all other factors affecting the cost of doing business. The community with a chamber of commerce thus equipped or the state with a well-organized industrial development council has a definite advantage over cities or states not so organized.

CONCENTRATION AND DECENTRALIZATION OF INDUSTRY

There has always been a tendency to concentrate factories in a relatively few locations. For the United States as a whole, 61 per cent of all manufactured products are produced in thirty-three metropolitan areas, which percentage has remained about constant for the past forty years. This tendency of industry to concentrate has produced the great cities of America and has, at the same time, produced some social and economic problems which have led social-minded persons to advocate a wider distribution of industrial production.

Industry is an integrated process, one industry usually depending upon another for its raw materials, in whole or in part, or for its markets, its services, or its supplies, such as packages, labels, and other accessory equipment. Industry as organized today is not, therefore, an independent and wholly self-contained operation which can be put just anywhere.

Decentralization of industry is probably a fine thing socially, although it is not admitted that the concentration of industry is responsible, in itself, for the problems growing out of concentrated populations. As a matter of fact, statistics show that populations have concentrated more rapidly than industry. For example, the thirty-three metropolitan areas of the nation, which retained for the past forty years approximately the same percentage of the nation's industries, increased 110 per cent in population, while the nation as a whole increased only 62 per cent. In other words, approximately one half of the total increase in national population has concentrated in thirty-three metropolitan cities, although there has been no proportionate increase in the number of wage jobs in manufacturing in those cities.

Perhaps it is not too much to suggest, therefore, that interest in the subject of

decentralization is the direct result of social and economic problems growing out of a rapid concentration of population without a corresponding growth in employment opportunities, augmented somewhat, of course, by further unemployment brought about by the introduction of labor-saving machinery, by the development of synthetic substitutes, and by the ravages of the depression.

To some extent, therefore, the city problems of unemployment, slum conditions, and perhaps even crime result in part from an underdevelopment of industry rather than from too much concentration of factories. Distributing factories to the villages of our country is not likely to solve our city problems of congested population and unemployment. Nor is it likely to provide the nation with successful enterprises, even from an employment standpoint. Politicians may not agree with this; however, the function of government is politics, not economics. Industrial development is an economic process. It can be encouraged or hindered, but not permanently dominated, by politics.

Industries have tended to concentrate, not only because of their dependence upon one another for materials, services, accessories, and markets, but because of available central-station power, the existence of supplies of labor of certain types, the availability of capital, housing, community protective facilities for safeguarding the security of the industry and its employees, the application of special commodity freight rates, more abundant and more frequent transportation services—such as pool and package cars for less-than-carload shipments—and because of the importance of closely serving a local market, particularly for industries manufacturing direct consumables.

Large cities do not possess a monopoly of locational advantages, however. Until the enactment of recent Federal wage legislation, the small city could usually offer lower labor costs, reflecting lower living costs. Usually it has cheaper land, lower taxes, lower housing costs, better living conditions, more freedom from labor troubles, less transportation congestion, less loss of travel time between home and factory, and a greater opportunity to supplement the wage income with home gardens and home-tended livestock.

These conflicting forces, viewed differently by different industrialists and affecting different companies in widely varying ways, are perhaps no stronger today in favor of either the large or the small city than they have always been, except in so far as wage scales are being standardized by the Federal government and by the spread of unionism.

It appears likely, therefore, that as long as we remain free from national industrial regimentation, without too much pressure being exerted through industrial housing projects, the Tennessee Valley Authority, the subsistence homesteads, and other agencies of our national government, or by wild ideas of state and local governments, our industrial pattern will remain about as it has been in the past, with industry seeking locations where the largest number of economies in production and distribution can be had—where the profit motive dictates.

CHEMICAL RESEARCH AS A STIMULANT TO URBAN GROWTH

Most of our manufacturing has sprung from the conversion of near-by raw materials into consumable goods, just as the early industries developed in the New England Colonies and in the South. These raw materials may be the products of the farm, the forest, the mine, or the sea.

With respect to the use of agricultural products in industry, mention should be

made of the recent, enormous influence that organic chemistry has been exerting in this field. No longer does cotton produce only fiber to be woven into threads, seed from which oil can be extracted, and feed and fertilizer made from the remainder. Through the test tube the cellulose fiber becomes artificial silk, or plastics, or cellophane, or a weatherproofing material, or a myriad of other things. By another process the protein in the seed becomes another type of plastic, and the oil is no longer only a base for soaps, salad dressings, cooking oils, and margarines, but is converted, or convertible, into a wide variety of uses because of its carbohydrates and its acids.

Corn is no longer only something to be fed to livestock or eaten off the cob. Today it is a starch, a sugar, a glue, and a base for oil and for sorbitol, for alcohol, for plastics, and for ascorbic acid.

Numerous other products of agriculture likewise are entering new uses by conversion through the chemical laboratory. Among these may be mentioned the sweet potato, the peanut, the pecan shell, oat hulls, wheat straw, the sunflower, the castor bean, the grain sorghums, broomcorn seed, wood wastes, and the tree itself. The lowly cow's milk is turned into synthetic wool, buttons, etc., and, more recently, into wine.

Likewise, and in somewhat similar manner, petroleum, natural gas, asphalt, coal, lignite, and other subsoil products are receiving scientific treatment. The organic chemist takes the hydrocarbons of these minerals and, by various methods, turns them into alcohol, solvents, plastics, tars, dyes, drugs, and even foodstuffs. The inorganic chemist turns stones into metals and wool; sea water into soda ash, bromine, and iodine; gypsum into boards; clays into a wide variety of ceramics, beauty creams, and other toilet preparations, drilling muds, facial muds, and paving materials; potash, phosphates, and the air into fertilizer; sulphur into pipe, insecticides, fungicides, and feed—and on and on, almost indefinitely. The daily papers and the scientific journals, trying to keep abreast of these new developments, read like romances.

These newer types of industry, whether based upon agricultural or mineral raw materials, are the direct result of the research to which our leading industries are devoting so much attention. This encouraging development is almost entirely new since the World War, prior to which time organic chemistry, for example, was a subject confined almost wholly to college classrooms. Industrial research today employs 32,000 workers, at a cost of about $250,000,000 annually. There are now established in our universities 450 scholarships, fellowships, and research assistantships, sponsored by 148 different agencies, doing research on problems of interest to the supporting industry. Research in leading chemical companies represents an expenditure of $2.80 for every $100.00 of net sales. Forty per cent of DuPont's income today is derived from the sale of products unknown ten years ago.

While prospects for further city growth are not favorable when we consider population trends in this country, the picture changes greatly when we note the opportunities for further industrial development, much of which will likely occur in or near our large cities, just as it has in the past.

BRANCH PLANTS

There is another type of migration, or decentralization, going on which offers equally large opportunities for real estate men dealing in industrial and commercial properties—though less romantic ones. This is the tendency on the part of in-

dustries distributing nationally to establish branch plants largely with respect to regional markets. It is out of opportunities of this kind that much of our recent development has taken place. These opportunities have not all been absorbed. In fact, there are perhaps 10,000 manufacturers already committed to the branch-plant type of operation; there are many more who follow the practice of carrying stock in storage at distributing centers, which latter practice is often followed by setting up local factories to reduce cost of distribution from central plants. Industry is cost-conscious—more so today than it has ever been.

The Realtor, the appraiser, the business and professional man in every walk of life, if he is interested in widening the local market for his goods or his services, should be interested in developing locally all those forces which can be put to work to stimulate city growth. The modern American way is through a properly organized chamber of commerce, made alert to its opportunities and amply supported by the business element of its community.

URBANIZATION

Population increases and urbanization lead naturally to the development of industries producing consumer goods and providing services. These, in turn, stimulate commercial activity and provide opportunities for the sale and rental of commercial properties.

While vast changes are occurring in the character of our industrial structure through the rapid ascendency of the chemical industry, while changes in sources and kinds of raw materials are taking place, while industry is still of a migratory nature, free to choose its location without political domination, while raw materials await new factory processes, while labor is still ready and willing to work and not looking wholly to government for support and security—while these things exist, communities have an opportunity to build themselves into greater cities.

New enterprises are being sought earnestly by all sections of the country. They are indigenous to no section. Research and sales efforts are required to move them or to land them when they are moving. The opportunity to stimulate the further growth of American cities has not ceased. The acquisition of more industries and, through that, the creation of more employment opportunities will, when properly done, lead to the development of a wider market for commercial properties, as well as residential real estate, and will insure realty values already created. Industrial development, properly fostered, will check the national trends of population distribution and will provide a foundation on which to construct a sound and permanent value structure for real estate.

TAXES, ASSESSMENTS, AND APPRAISALS

GEORGE L. SCHMUTZ, M.A.I.

A TAX system is a series of devices for transferring purchasing power from the pockets of the people to the public treasury to defray the cost of governmental functions. It is a matter of common knowledge that every tax system is the result of compromise. Why this should be so is not so important as the knowledge that it is so.

The matter of taxation is one of the most perplexing of present-day problems. The tremendous increases in the costs of governments, both local and national, and the probable continuance of this upward trend for years to come is a challenge to the very integrity of government itself.

However, even the entire abolition of taxation would not satisfy everyone. The single-taxer would still demand the imposition of a tax on land to correct that condition which he believes to be the moral wrong of private ownership of land. Also, the believer in sumptuary laws would insist upon various regulatory and repressive taxes. Thus the abolition of all taxes would not meet with full favor.

So long as people differ in their concepts of social philosophy and in their notions as to what constitutes justice and equity, then just so long will there be controversy regarding the manner in which taxes should be apportioned. Even if there were complete agreement regarding political and social philosophy and ethics, there still would be controversy regarding the relative merits of particular fiscal methods proposed for attaining the desired ends. Thus the complexity of the problem and the difficulty of its solution become readily apparent.

TAX EQUALIZATION

The warrant for believing that taxes are onerous and becoming more burdensome becomes a stronger warrant for focusing attention on the need for the equalization of the tax burden as well as the taxing of all taxable property. The fact that real estate has been discriminated against in the past and in the present is not a justification for a continuance of the discrimination in the future. Thus, how important it is that all forms of taxable wealth be put on the tax rolls and that the real estate assessments be equalized!

Real estate is burdened with an undue amount of the tax burden because very little if any of it escapes the notice of the assessor. This is not so with other forms of taxable wealth. If all personal property, money, credits, and intangibles were on the assessment rolls, as contemplated by the revenue laws, it is reasonable to assume that a portion of the discrimination against real estate would be removed. Equality and justice require the finding of all taxable property and the assessing of it at a fair and just valuation. This is the first step each local assessor can take to ameliorate an unjust distribution of the tax burden on real property.

The second step lies in equalization. The law directs and justice dictates that the real estate tax shall be borne in proportion to the full cash value of the property of each owner. It is the responsibility of the assessor to value all property as equitably and uniformly as possible.

If this is done, then the amounts levied by local governmental agencies may be distributed in the same proportion that the value of each parcel of real estate bears to the value of all real property in the county.

The tax structure has not been adjusted

to changes in social and economic conditions. The inevitable result of this is that the tax burden on real estate has become progressively greater. By way of illustration, in New York from 1900 to 1925 the total wealth of that state represented by real estate had shrunk from two thirds to one third of the entire wealth of the state, whereas the percentage of state and local taxes levied against real estate had remained constant at approximately three fourths of the total tax levy. It therefore follows that real estate has been supporting a succeedingly greater proportion of the tax load. About one fourth of the national income is from real estate, yet real estate carries about three fourths of the tax burden.

The existing tax burden on real estate has been and is causing acute and widespread distress. The present tax is productive of certain well-defined and undesirable social and economic effects upon the desirability of home ownership, upon farms, and upon merchants and manufacturers, as well as in other channels, due to the multifarious influences of real estate. When real estate taxes tend to discourage home ownership and ownership of other forms of realty, there come inevitable repercussions upon the building industry and upon the prosperity of merchants and manufacturers who depend upon consumer demand in all areas, industrial and agricultural as well.

When realty values are depressed by excessive taxation, then the security underlying mortgages becomes lessened. If such conditions are permitted in an extreme degree, then such taxes may actively contribute to a situation which may seriously impair the solvency of savings banks, insurance companies, and other financial institutions.

The two generally recognized defensible standards by which equity in the distribution of taxes may be measured are (1) benefit and (2) ability to pay — the benefit derived from living in an organized society and the ability of a property to pay taxes as evidenced by its net income. It is a generally accepted principle that real estate should be taxed according to its ability to pay the tax. The yardstick by which such ability can be measured is productivity.

PRODUCTIVITY AS TAX BASIS

In urban properties, productivity is represented by income—that is, rent; in farm properties, it is represented by the crops produced; in grazing lands, it is represented by forage potentialities or the amount of feed available for cattle. In effect, these form the most equitable bases for the assessment of lands and are serviceable during times of many or few sales of property.

It is common knowledge that a city property producing a net income of $2,000 a year is worth more than one capable of producing only $1,000; that a tract of farm land which will produce twenty sacks of barley per acre is worth more than a tract producing ten sacks; that a section of grazing land which will feed twenty cows during the summer is worth more than a section which will feed only ten cows. These are facts known to all.

There thus appears ample warrant for a mature consideration of the productivity of property, urban and agricultural, preparatory to the formation of a conclusion of value and the spreading of the assessment. The warrant for such consideration becomes stronger when we recognize the fact that productivity is the yardstick by which the buyers in the market gauge the relative worths of various properties.

The law contemplates that the tax on real property be based upon the value of the property taxed, and, inasmuch as value arises because of the productiveness of the property, such as crops or money

rents, it follows that crops or money rents form a fair basis for the distribution of the real property tax burden. This approach is particularly useful during times when adequate sales data are not available.

As a basis for assessments the productivity approach to the full cash value has certain advantages over any other approach, especially as a long-term process, for the reasons that (1) it may be more readily determined than sales, especially when sales are few and/or of the distressed variety; (2) it may be more scientifically adjusted to changes in price levels or changes in production due to drouths, frosts, insect pests, or other conditions; and (3) it corresponds more closely to the true paying ability of land and hence corresponds more closely to the full cash value of the land.

The basic objective of sound assessment administration is the establishment of a system which will result in uniform and impartial assessments. The attainment of this objective will provide an equitable distribution of the property tax that rests upon all owners of real estate.

There is a great need for sound and scientific estimation of property values because of changes in property uses and economic trends. This need may be partially satisfied by an integrated property assessment system and procedure and standards for uniform application to properties of similar character and use.

The assessing official must adopt recognized, practical, real property appraisal techniques which are based upon sound principles and which are capable of economic administration. The methods must be readily understandable by the deputies, and they must be organized so as to be easily and uniformly applied to all similar properties in the assessing jurisdiction.

The essential tools for making equitable assessments are:

1. Classifications of lands and improvements.
2. Land-value maps.
3. Tax maps showing the location and size of every parcel of property.
4. Standards and units of value for the valuation of lands and of buildings.
5. Standards for the valuations of machinery and equipment which are assessed.
6. Rules and guides for estimating depreciation.
7. Photographs of individual properties, including a complete block record of parcels and land descriptions.

In addition to the necessity for good tools, it is equally important to have persons of competence use the tools. Good carpentry results not from good tools alone, but from good tools in the hands of competent workmen. And so it is with any assessor's office. The finest system in the world may be useless unless used by competent deputies who are in some measure endowed with that rare, God-given virtue called *judgment*.

LAW SATISFACTORY, ADMINISTRATION AT FAULT

From time to time we hear cries that the law and the system are out of date and that new legislation is needed to correct the alleged ills of the present assessing system. These pleas fall on barren ground in so far as the writer is concerned. In the main the *law* is satisfactory, but its *administration* is at fault.

Let us speak of the first of these current criticisms — that the assessor should not appraise land and building as two properties, which practice is frowned upon by appraisers. It is a matter of common knowledge that a building may be too large, or too small, or of the wrong kind for a particular lot.

These are called overimprovements, underimprovements, and misplaced improvements. Legion are the cases in every large

city where the value of the land, considered as a vacant lot, added to the depreciated cost of the building, produces a total figure greatly in excess of the full cash value of the property.

Notwithstanding the fact that most assessors resort to this indefensible process of valuation, the fact remains that it is the fault of the assessor rather than of the law.

The revenue laws contemplate that property be assessed at its full cash value and that separate assessments be made of land and improvement. The law does not say that land and building must be appraised separately, although it does say they shall be assessed separately. The very fact that the law requires property to be appraised at its full cash value is evidence of the fact that land and building should be appraised as a unit of property. The breakdown as between land and improvement for assessment purposes can come later. Thus, the criticism of the system should not be leveled at the law, but rather at the assessor who administers the law.

What is this thing or condition called *value*? It has none of the attributes of color, shape, hardness or softness, or the usual features of substances. Briefly, value is a relationship. More than a century ago a group of thinkers now known as the Physiocrats enunciated the objective theory of value — that value is inherent in the thing valued and depends upon its cost of making. They affirmed that the value of a building depended upon how much it cost to make it. This antiquated theory of value thus laid the foundation for the reproduction school of appraisers, such as assessors, who assert that a structure is worth what it cost irrespective of its location or earnings.

This concept of value was superseded by a theory developed by a school of thinkers known as the Austrians. They affirmed that value is subjective, that it is a relationship between a person and a thing. This concept, which predicates value upon what people will pay, thus laid the foundation for the capitalization or productivity school of appraisers, which is the thought accepted by present-day appraisers, but not accepted by assessors.

This latter school held that value depends upon the wants of people and the ability of the thing valued to satisfy those wants. Thus, the underlying cause of value is human needs.

The foundation of assessing is appraising, which is a branch of economics, which is that science which treats phenomena from the standpoint of price. However, appraising is becoming less a system of pecuniary logic and more a science of human behavior. What people will pay for property depends upon what they think, and what they think depends upon the stimulus presented. An understanding of these conditions is necessary to sound appraising and equitable assessing.

The approach to the value estimate most commonly employed by assessors is known as the comparative or recent transaction method of value estimation. The theory involved is: "The worth of a thing is the price it will bring." However, this approach is fraught with danger because of the noncomparability of properties which appear to be comparable. In many cases the comparability can be established only by a study of relative productivity of the property under appraisement as compared with the property which was sold.

A common failing is for appraisers and assessors to predicate an estimate upon the most meager of information. The goal of the assessor's inquiry is the market value, or full cash value, or true value of the property being appraised. It is the amount for which the property would

probably sell in the open market between willing sellers who are not compelled to sell and willing buyers who are not compelled to buy. It is not the price at which property would probably sell at auction or forced sale.

And, finally, inasmuch as one swallow does not make a summer, nor does the man who fires the last shot win the war, neither does one sale establish market value. To say that it does is as sensible as Aesop's fable of the fly who sat on the axle of the chariot and said, "What a dust do I raise."

The two conditions essential to the emergence of price are utility and scarcity. Without both, a property will have a subnormal value if any at all. By way of illustration, air has the greatest possible utility, but commands no price for the reason there is more than plenty of it. Thus the absence of scarcity renders it unmarketable. On the other hand, mosquitoes in winter time are scarce indeed, but command no price because no use can be made of them.

ASSESSORS CAN ALLEVIATE UNFAIR TAX BURDEN

The tax situation is bad and is becoming worse in so far as real estate is concerned. Although legislation is required to restore some reasonable relationship between the tax on real property as compared to the tax on all other forms of property, the fact remains that there are certain corrections which can be applied by the local assessor.

First, the local assessor can and should place on the assessment roll all of the taxable property in his jurisdiction. It is commonly believed that an appreciable amount of personal property and intangibles escape assessment each year. If this is true, and it is reasonable to assume that it is, then real estate now carries the tax burden avoided by the properties which escape assessment. The correction of such a condition is the first duty of the assessor.

Second, the local assessor can and should equalize the assessments between all properties in the county. It is the rule, rather than the exception, for similar properties in different areas in the same county to be assessed at widely different values, although they may sell in the open market at identical figures. This common condition is due to the human equation — the difference in the deputies working in the different areas.

In a local case in point two districts are similarly developed with residences having an average worth and actual selling price of about $7,000. Notwithstanding the fact that these properties are in the same city and are wholly comparable, in the one district the assessed value averages $3,000, whereas in the other it is $4,500. Similar situations exist with apartment and commercial properties. In one area a property with a given income will be assessed 35 per cent higher than a similar property with like income in another district of the same city.

This condition can be corrected. If each assessor would set up an internal board of equalization for the purpose of correcting differences of opinion of various deputies and equalizing one type of property with others, irrespective of its location in the county, then much could be accomplished toward the equalization of the tax burden in that taxing jurisdiction.

The law contemplates that taxable property be assessed at its full cash value. Irrespective of whether assessments are made at 50 per cent or 150 per cent of the full cash value, no injustice is done if all properties are assessed upon the same basis. Here the question arises as to what is a reasonable yardstick for measuring the value of properties for assessment purposes.

The answer is simple. Viewing the mat-

ter through the eyes of persons who form the market and do the buying, it is seen that productivity is the one really sensible yardstick. By this it is not meant to advance the cause of appraisals based upon income only. Far from it. The practicability or advisability of such a procedure is most questionable. But it is felt that more attention should be paid to rents and crops in arriving at an estimate of what a buyer would probably pay for the property.

Beyond any question of doubt, income is the best vehicle of equalization. This can and should be considered irrespective of the fact that equity must be tempered with ease of economical administration. While it would be impractical and exorbitantly expensive to make detailed appraisals of every income-producing property for assessment purposes, the fact remains that productivity can be efficiently considered.

The suggestion that rents should enter more strongly into the assessor's consideration in appraising urban properties and that crops produced likewise should enter into agricultural land values quite clearly is consonant with the mandates of the law that real property be assessed at its full cash value. It is equally true that this procedure contemplates the valuing of land and improvements as a unit of property. The division of the total value as between land and improvements as required by the code is then a simple procedure.

As a matter of fact, the larger mortgage-lending institutions, such as the life insurance companies, require the appraiser to report the value of the entire property as a unit and then show, by an arbitrary apportionment, how much of it is represented by the land and how much by the structure. Inasmuch as the major financial institutions consider this to be sound valuation procedure, it follows that the assessor is derelict in his duty if he persists in a practice which has been condemned by the best-informed minds in the nation.

We may once more stress these three points: (1) that all taxable property should be on the assessment roll; (2) that real estate values should be viewed through the eyes of the buying public, by which is meant that the public's attitude toward money rents or crops be considered; and (3) that improved property should be valued as one property, notwithstanding the necessity of breaking down that value into its components — land and improvements. By the general adoption of such a program the assessing authorities would then in fact be conforming to the laws set up for their guidance, and by its practical application thereafter would do much to alleviate the intolerable and unfair burden of taxes now carried by real estate.

THE ECONOMIC POSITION OF REAL ESTATE

VICTOR P. MORRIS

IN a world which has been rapidly altering so many phases of its social, economic, and technical structure, it becomes necessary frequently to pause a moment in the rush of our activities to reappraise the fundamentals of some of our most common phases of life. We examine anew institutions and processes which we long have accepted without question. Similarly, we examine such a fundamental of life as our relation to natural resources and the conditions of ownership and the forces imparting value to such ownership.

Let us consider the position of real estate as affected by fundamental economic and social changes now under way. We shall omit from this discussion the unusual and temporary changes which may result from such phenomena as monetary inflation. Undoubtedly monetary inflation would vastly affect for the immediate moment the significance of real estate and the pressure for its possession. There are many who could profit from the sudden shifts in real estate values which monetary manipulation would produce, but by the very nature of this tampering with money its effects could be but temporary. Except for the fly-by-night operator who wishes to profit by the exploitation of others, the fundamental interests of real estate owners, and consequently of Realtors themselves, are *long-time* interests. Profits are to be made in the long pulls of steady development and not in the fleeting changes of inflation. Inflation frequently crushes out some owners and brings in others, leads to temporary rushes into land ownership, but when the immediate monetary change is over, fundamental economic relations of land to other factors in economic life remain comparatively unaltered. Our real and lasting interest is in monetary and credit stability, not in the stimulus of a monetary "shot in the arm."

We shall not attempt to present an exhaustive analysis of forces at work in determining the economic position of real estate. Certain specific forces have been chosen for treatment. They are certainly not all of the factors; they may not even be the most significant ones. There is much room for range of opinion, and each must be tolerant of the emphasis which the other wishes to place upon different factors.

ADEQUATE GOVERNMENT

First of all, in a world as chaotic politically as our world is at the moment, it is well to renew an emphasis upon the significance of law and order to property values. Man's commercial and industrial development has ever been dependent upon reasonable political stability. By the very nature of the conditions, institutions such as property rights involve long-continued existence. Property rights, and hence property values, cannot be existent where law and order do not prevail.

This should not be taken to mean that land as a factor in production is significant only in a capitalistic society. The coming of a socialist or communist state would shatter private ownership of land and eliminate the profit motive from its management by individuals, but most of the fundamental factors in land utilization and the relation of raw materials and situation to the rest of the productive process would remain.

The more successful good government is, and the saner and more reasonable the social outlook of the owners of real estate, the better for land values. Every possible

effort should be made to preserve law and order. It is not necessarily true that the less government there is, the better. But one does not examine the problems of government without growing painfully conscious of the costs of government. Taxes have constituted one of our most urgent problems, and probably few of us are looking forward to any lessening of the total load of taxes which must be carried by some elements of tax-paying ability. Indeed, unless there is to be repudiation of public obligation, and consequently a weakening of good government and a crumbling of law and order, the tax load must be increased upon some sections of tax-paying ability.

Good government, like all other good things, must be paid for. Adequate government means substantial tax loads. Those interested in real estate—owners, operators, dealers—have a high stake in the maintenance of effective government with its attendant law and order and the preservation of social and economic institutions. But effective government in the modern world means more services and additional functions. Indeed, the very intensity and complexity of modern life which produce property values and give economic significance to what we call real estate necessitate more governmental functions and a large increase in services. Primitive conditions where property values are low call for only the most elementary forms of government. Crowded areas, intensity of life, and complexity of conditions make inevitable more governmental activity and higher relative governmental costs if law and order are to prevail.

Two major interests in connection with the tax problem would seem to face those interested in real estate. The first is reasonable economies in government and efficient budget procedures. While real estate interests should not demand reductions in governmental function, they do have every right to ask that each dollar be as effectively spent as possible, and that such budget procedures on the part of governmental agencies shall be practiced as will keep the public well informed concerning the efficiency with which the expenditures are being made.

The second interest is that there shall be a fair and reasonable distribution of the tax burden through a wise and effective *tax system.* Real estate interests should not be concerned with mere reduction in tax totals, but with the general distribution of the tax load. The solution to this difficult problem obviously rests not in an examination or an overhauling of any *one* form of tax, such as the general property tax, but in the development of a *constructive tax system as a whole.*

POPULATION AND ECONOMIC ACTIVITY

Turn now to another important consideration, namely, that of population change. In many of our western nations populations have been growing more stable. Birth rates and death rates have been coming into balance, and population increase has in many cases all but disappeared. In some of our communities this is particularly evident in the problems which have been confronting the school districts. Numbers of children in primary grades have ceased to increase—indeed, in many cases have been declining—showing a tapering off of the population increase in the country. This is of great concern to the owners of real estate. Does the stabilization of population mean an end to rising land values? It has often been maintained that increases in land values are the direct result of population growth. If this does tell the story, then, obviously, as population ceases to increase, land values will themselves cease to rise.

There can be no question whatsoever

but that the pressure of population against natural resources has been one of the chief causes of economic values. Indeed, it is a commonplace in economics that goods do not take on the characteristics of value until the scarcity factor has come into existence. But population pressure due to increasing numbers is only one of *two* major factors in property values.

The two factors are: (1) population growth and (2) the intensity of economic activity. The second of these is fully as important as the first and, indeed, in years to come is likely to be far more important than the first. A large population with sluggish life will produce less property value than a small population possessed of great vigor of activity. Obviously, there are times in the early history of any area when growth in numbers is the major influence. Today, however, in most sections of the western world, growth is of decidedly lesser significance, and the *tempo* of our economic life is of major import. Birth rates have declined so much that the rate of increase has been approaching zero. Is it even possible that populations will begin to decline? This may very well be and, if so, will be a matter to be taken definitely into account.

But on the other hand, there is no indication whatsoever that we are approaching a decline in economic activity. As a matter of fact, in spite of wars and rumors of wars, and in spite of the conditions which we call a business depression, the tempo of economic life has been increasing, and we may even be on the threshold of a still more rapid movement of economic forces. The mastery of nature, represented by our achievements in physics, chemistry, and biology, lays the foundations for this increasing tempo. Even though population may become almost entirely stable, property values may continue to rise as a result of this increased intensity of economic activity.

In connection with this particular point, attention should be called to the relationship of scientific achievements to the utilization, and hence to the values, of natural resources. As the scientific world has mastered new forces and discovered new physical elements, great shifts have taken place in the relative significance of resources already existent. The chemist, for example, in the development of new alloys, has altered the relative importance of basic metals. This shift in importance means change in the relative values of property holdings.

Developments in the field of electricity have shifted the location of industry. No longer does the industrial enterpriser find it necessary to locate factories and mills at the seat of power. The values of beds of coal and pools of oil and water-power sites have been greatly altered by the achievements of long-distance transmission of electrical energy.

Rapid, cheap, and protected transportation have changed the relative importance of agricultural areas, timber holdings, mineral deposits, harbor facilities, and urban situations. In the field of agriculture alone the chemist has not only already vastly shifted fundamentals, but even gives promise, through some of the recent experiments, of profoundly altering still further our methods of producing food and other agricultural resources.

EXPANSION OF LAND SETTLEMENT

Still another important factor affecting the economic position of real estate is connected with the limits of land settlement. Attention is here called to a very valuable book recently published under the title, *The Limits of Land Settlement*,[1] edited by Isaiah Bowman. This volume approaches the problem of a possible expansion of population into areas of the earth's sur-

[1]Bowman, Isaiah, Ed., *The Limits of Land Settlement* (New York, The Council of Foreign Relations, 1937).

face not now intensively used. During the nineteenth century land values in all the settled portions of the world were greatly affected by the vast areas in North America, South America, and other portions of the globe which were for the first time thrown open to development. As some individuals have looked to Australia, Russia, and other portions of the Asiatic lands, they have wondered if perhaps once more enormous new areas might be thrown open to cultivation. Two considerations, however, should be noted here.

First, new areas are decidedly limited. Vast productive sections, such as the Platte and the Mississippi valleys, are not to be found in these undeveloped parts. Expansion to the north has so far been limited by the shortness of the growing season. Almost miraculous discoveries have been made, however, of methods of treating seed by which the required growing season has been shortened by as much as a month. Such rapid changes in methods of production as are forecasted by our present achievements may mean an important northward movement of agriculture. Vast possibilities, of course, lie in the tropics. Here the principal limiting factor has been one of sanitation. Man can live and work in the tropics if he can maintain his health.

By no means least among the forces determining the limits of land settlement, and a factor much to be considered at the present moment, is the change in ease and freedom of movement. This freedom of movement seems now, at least temporarily, to be almost at an end. Time was when new areas were inevitably thrown open to migration. Today social and political forces must be carefully taken into account when the economic position of real estate is under consideration.

For a considerable period of time we have been giving much more thought to what is called the business cycle. Our thought has been directed to this largely because of the uncertainties and the disasters which we have suffered individually. But the student of economic forces should give these business cycles very much more careful attention. It is the aim of many students to devise some forces which would tend to smooth out the business cycle and, perhaps, even to eliminate the cycle and completely stabilize business. Is it possible, however, that this is just an idle dream? Conditions of modern life are such that the swings from prosperity to depression are likely to grow more severe rather than less severe. They will affect property values and must always be taken into account by those who would profitably manage real estate. Our achievements in the processes of production have brought us to a point in human history where only a relatively small proportion of natural and human resources must be devoted to the basic necessities of life. Standards of living have moved upward for the vast masses of people to a point where they include comforts and luxuries as well as the basic necessities of existence. While standards of living are at low levels close to the subsistence point, wide fluctuations of economic activity are impossible. But when man moves up into the stage where considerable portions of his effort are devoted to comforts and luxuries, the possibilities of fluctuation become much more pronounced.

Business cycles deserve the most careful study on the part of those interested in the economic position of real estate. One phase of this which should be briefly examined here is the relationship of interest rates to property values.

Natural resources, both from the standpoint of utilization and of conservation, are profoundly affected by the going rates of interest. This particular feature of the business cycle is one of the most perplexing, and in some ways one of

the most alarming, of the moment.

INTERNATIONAL RELATIONS

Finally, property values are intimately related to international conditions. If it is true, as was argued above, that the preservation of property values is closely correlated to the preservation of law and order, there can be no denying the fact that international chaos, economic warfare, fears, hatreds, and jealousies all tend to lower the general level of property values. Indeed, all international conditions which tend to slow down the tempo of commercial and industrial life are antagonistic to the preservation and development of real estate values and militate against the interests of the owners and operators thereof. It may well be that a land particularly lacking in raw materials should fear the intensive competition of new areas richly endowed with the raw materials of industry. But lands of abundance, such as the United States, are lands which should be interested in the widest possible development of world trade and territorial division of labor.

It should be a matter of keen regret to those of us interested in the fundamental position of real estate that the postwar period has seen an intensification of the importance of national barriers and such an alarming growth of such policies as trade restrictions, quotas, exchange controls, and barter arrangements. No more important development for the improvement of the economic position of real estate could come than achievement in the field of international relations known as peaceful change. International law and order would tend to launch a new growth of property utilization.

THE MARSHALL FIELD TRANSACTION

WILLIAM H. DOUGHTY

CONSIDERABLE interest has been aroused in Chicago and other metropolitan centers by the purchase of two fees, on May 3, 1939, by Marshall Field & Company from the Estate of Marshall Field. The consideration of $15,000,000 makes this one of the largest cash sales in Chicago's history, and the following is an independent analysis of the transaction based upon information that is a matter of public knowledge.

The two fees, occupied by the Company's main retail store and men's store, were formerly leased for ninety-nine years by Marshall Field & Company from the Estate. Both buildings are owned by the Company, having been purchased for a total consideration of $12,000,000 from the Estate in 1924, coincident with the making of the ground leases. Since Marshall Field & Company and the Estate of Marshall Field are entirely separate entities, and because it is known that the only interest of the Estate in the Company arises through the ownership of a block of the Company's preferred stock, these transactions were recognized at the time as being bona fide business arrangements made "at arm's length."

The larger of the two fees involves the block bounded by Randolph Street on the north, State Street on the west, Washington Street on the south, and Wabash Avenue on the east. Frontages are 384.6 feet on State Street and Wabash Avenue and 341 feet on Randolph and Washington Streets. The improvement over the whole block consists of the retail store of Marshall Field & Company, rising to a height of twelve stories, except for that portion at the southeast corner fronting 150.6 feet on Washington Street and 108.6 feet on Wabash Avenue where the building rises only nine stories. The first floor is divided by Holden Court, a forty-foot alley, which extends north and south between Washington Street and Randolph Street and provides shipping facilities for the store. This section of Holden Court was not included in the transaction inasmuch as the Company had already purchased it some years ago from the city of Chicago, the public use of the surface being reserved as a condition of the sale.

The second fee lies at the southwest corner of Washington Street and Wabash Avenue, having a frontage of 144 feet on Wabash Avenue and extending 150.6 feet on Washington Street to Holden Court. The site is improved with a twenty-story, modern, fireproof, store and office building. The first six floors are occupied by the Marshall Field & Company "Store for Men," while the upper fourteen floors are given over almost entirely to medical occupancy and small shops.

For the sake of convenience in the use of actuarial tables, this analysis has been made as of October 1, 1939. Its purpose is to establish certain of the values accruing to both purchaser and seller as a result of the transaction.

MARSHALL FIELD & COMPANY LEASES
(COMBINED)

Period	Oct. 1		Sept. 30	Total Yearly Rental
13 years	1924	to	1937	$ 900,000
7 years	1937	to	1944	950,000
20 years	1944	to	1964	1,000,000
20 years	1964	to	1984	1,050,000
20 years	1984	to	2004	1,100,000
19 years	2004	to	2023	1,150,000
Total rental for 99 years				$103,200,000
Deduct: To Oct. 1, 1939, 15 years' rent				13,600,000
Balance, 84 years				$ 89,600,000
Average yearly rental for 84 years from Oct. 1, 1939 (approximate)				$ 1,067,000

PURCHASE PRICE

$15,000,000, obtained through a $15,000,000 loan, bearing interest at 3.6 per cent, from the Metropolitan Life Insurance Company of New York, to be paid off in twenty years.

COST TO PURCHASER

For the purposes of this computation it is assumed that the 3.6 per cent interest on $15,000,000, or $540,000, is a constant during the next eighty-four years, beginning October 1, 1939, and ending September 30, 2023, the expiration date of the Marshall Field & Company leases on the two fees. While the loan will be retired in twenty years, the equity in the land is considered an offsetting factor.

Given this assumption, it is evident that the saving between rentals established under the leases and the interest on $15,000,000 at 3.6 per cent has capital value to the purchaser.

To determine the present worth of this saving, making due allowance for future increases in rental provided under the leases, the factors given below are applicable. (An 8 per cent rate is used, rather than a lower rate, as insurance against the risk involved in an annuity computed for a period of eighty-four years.)

DETERMINATION OF FACTORS

Years	8% Factor (Inwood Coefficient)	Deferred Years	Deferred Factor
5	3.993	0	3.993
25	10.675	5	6.682
45	12.108	25	1.433
65	12.416	45	0.308
84	12.480	65	0.064

DETERMINATION OF NET COST TO PURCHASER

Period Oct. 1	Sept. 30	Annual Saving		Factor	Present Worth
1939 to	1944	$410,000	x	3.993	$1,637,130
1944 to	1964	460,000	x	6.682	3,073,720
1964 to	1984	510,000	x	1.433	730,830
1984 to	2004	560,000	x	0.308	172,480
2004 to	2023	610,000	x	0.064	39,040
Total present worth (as of October 1, 1939)					$5,653,200
Then: Total cost		$15,000,000			
Deduct: Present worth of saving		5,653,200			
Net cost to purchaser					$9,346,800

This net cost to purchaser of $9,346,800 is $4,027,423 less than the assessed full land value of $13,374,223, established at the time of the last quadrennial assessment in 1935.

TRANSACTION FROM SELLER'S POINT OF VIEW

It was announced publicly that the seller was influenced by considerations arising from the present New York State and Federal income tax laws. In New York State the rate of tax is 8 per cent on incomes of $9,000 and over. Assume, conservatively, that the seller in this case falls in the $500,000 to $750,000 taxable income bracket for computing Federal income tax. The surtax rate in this bracket is 70 per cent, to which must be added the 4 per cent normal tax. Thus, a total of 82 per cent of the $1,067,000 average rental provided under the leases would have been consumed by taxes, leaving a balance of only $192,060 for use by the seller. On the other hand, the seller today can invest $15,000,000 in high-grade tax-exempt bonds which, at their present price levels, will yield an average of 2 per cent, or $300,000, and by so doing will accomplish an average annual gain in spendable income of $107,940.

Capitalizing current ground rent, the sale was made upon a 6.33 per cent basis. Capitalization of the average ground rental of $1,067,000 for the balance of the term indicates a 7.11 per cent basis. While these rates undoubtedly appear high for prime fees secured by adequate improvements in first-class condition, it should be remembered that the leases were drawn in 1924 and were based therefore upon land values far higher than any that can be justified at present.

Finally, the owner of so substantial an investment is faced at any time, and particularly under the conditions prevailing today, with the practical difficulty of finding a buyer able and willing to make a purchase of such large proportions. In the case discussed, the only logical buyer was Marshall Field & Company, the lessee.

BONBRIGHT'S "VALUATION OF PROPERTY"

GRAHAM ALDIS, M.A.I.

IT IS safe to assume that *The Valuation of Property*[1] by James C. Bonbright will become one of the standard reference works on the subject. Ably reviewed by Morris B. Ashton, M.A.I., in the April, 1937, issue of the JOURNAL, the importance of the work justifies further comment and discussion.

This treatise represents years of study by an eminent economist with the collaboration of many able students and was prepared "under the auspices of the Columbia University Council for Research in the Social Sciences."

It is far from safe to assume, however, that it will be used only as a textbook or consulted only by those inclined to the academic. It is a splendid book for any M.A.I.'s library, but the M.A.I. who merely keeps it there for possible "future reference" is likely some day to wish that he had studied it. Lawyers, politicians, technical advisers to judges, assessors, utility and state tax commissioners, and boards of appeal and review will know about it and will quote from Bonbright in support of their positions. In such event the "practical" real estate appraiser should be fortified. Another earlier study similar in general approach and issued under the same auspices, *The Modern Corporation and Private Property*[2] (which, incidentally, Professor Bonbright frequently cites with approval), crystallized many of the ideas which activate the present national administration's attitude toward big business, and its authors have sprung to high public office and influence.

The large portions of the work relating to public utilities, to damage cases, bankruptcy, minority stockholders' suits, and other corporate problems are magnificently thorough but concern the real estate appraiser only indirectly. We should concentrate, however, upon a consideration of Professor Bonbright's discussion of the valuation of real estate for ad valorem taxation, condemnation, and in connection with inheritance taxation.

In Chapter XVI, "Valuation under the Law of Eminent Domain," Professor Bonbright comments, "Improved real property, unless it is almost new (and not even always then), is seldom worth its replacement cost. To be sure, the courts require that an allowance be made for depreciation, including so-called functional depreciation as well as physical deterioration. In practice, however, this allowance is almost invariably inadequate. A jury or court is seldom willing to make those drastic allowances for the value deterioration of an expensive and impressive building that a shrewd businessman would make if he were buying the property for his own use." (Page 427)

To this it would be natural to suggest: "Consult a real estate appraiser; this question of functional depreciation and its measurement is one of those to which real estate appraisers have given exhaustive study." Professor Bonbright, however, some 300 pages previously, has ruled out real estate appraisers sweepingly with these words: "The only safe generalization about appraisals is that, however they are reached, they are almost certainly wrong by whatever standards of rightness the appraiser himself would recognize." (Page 134) In a few lines Professor Bonbright apparently imputes universal dishonesty to appraisers.

[1]Bonbright, James C., *The Valuation of Property* (New York: McGraw-Hill Book Company, Inc., 1937), 1,271 pp., 2 vols. $12.00.

[2]Berle, A. A., Jr., and Means, G. C., *The Modern Corporation and Private Property* (New York: The Macmillan Company, 1933).

This chapter on eminent domain concludes with the statement: "The scandalous overvaluations that were described in the Wallstein report on New York City condemnations were due, not primarily to unsound or ambiguous definitions of value, but to the testimony of fancy values by paid witnesses, to the unfamiliarity of the courts with modern appraisal technique and real-estate markets, and to unfortunate restrictions on the admissibility of actual sales of similar properties as evidence of value." (Page 449)

In view of Professor Bonbright's frequent references to this Wallstein report, it may well be inferred that his severity with regard to both condemnation procedure and real estate appraisers is largely due to these scandals which prevailed during the Tammany regime in New York.

At this point an observation and a generalization are perhaps in order. It is evident that most of Professor Bonbright's authorities and collaborators are New Yorkers or engaged in their specialized studies or activities in New York City. The magnitude of this, our greatest metropolitan area, the importance and complexity of economic interests seated there, the eminence of its courts, the prestige of Columbia University and particularly its Economics faculty, and the fact that monumental research studies appear to be more easily financed there than elsewhere—all these elements tend to self-sufficiency and to result often in conclusions announced as definitive for the country at large, but which in effect are applicable primarily only to New York.

The American Institute of Real Estate Appraisers has brought together a far more representative body of material on condemnation appraising from all over the country and, it may be suggested, a more equitable approach to the subject than Professor Bonbright's.

Chapter XXI is an objective and remarkably enlightening analysis of the problems and uncertainties of "Valuation under the Estate and Inheritance Taxes." No appraiser should undertake a valuation of this type without the benefit of this chapter.

Particular attention must be directed to Chapter XVII, "Valuation for Tax Purposes: The General Property Tax," both because of the major importance to appraisers of valuations for this purpose and because of the theories set forth. This chapter is "based on studies by Simon H. Rifkind, C. S. S. Epstein, J. L. Weiner, and Morton Liftin." (Page 451)

The argument is summarized thus: ". . . . the ability [to pay] doctrine, when adduced in support of a general property tax, has received such smashing blows from students of public finance that it cannot be taken seriously. . . ." (Page 454)

Hence we turn to the "benefit" theory. "Under this principle, a tax is levied on a factory, ... not because any one of these properties is assumed to indicate taxpaying capacity, but rather because its existence and operation impose on the government the necessity of raising additional revenues. Part of these revenues must be raised in order to protect the very property that is being taxed; but another part must be raised in order to protect the community against the harm that this property would otherwise do to other property or to other individuals." (Pages 455-56)

It is at this point that Professor Bonbright and his associates embark upon their own development, or rather extension of this theory, leading them to the startling conclusion that "so long as a tax system as crude as the unclassified real-estate tax persists, there is something to be said for an interpretation of the 'value' of improvements to mean estimated

reproduction costs, quite without reference to their commercial value — in short, without reference to 'value' in any accurate sense of the term." (Page 459)

A footnote quotes Harley L. Lutz in assumed support of this doctrine, and the method of its presentation in the text implies that it is a logical and accepted development of the "benefit" theory, although the cat finally pops out of the bag in one footnote on page 456, which begins, "The literature on taxation has largely neglected this latter point."

Professor Bonbright concludes in this chapter: "The law should abandon in words, as it has generally abandoned in fact, the dogma that market value constitutes the proper basis of tax assessment." (Page 509) However, he admits that the "frank adoption [of this theory]. would do such violence both to popular tradition and to legal doctrine, that there is no hope of securing its acceptance. That being the case, the courts are well advised in pursuing their past policy of accepting replacement-cost assessments [to which he objected in discussing condemnation awards] unless the taxpayer can bring convincing evidence that his property is worth an amount measurably less than replacement cost [but Professor Bonbright would not permit the taxpayer to produce such evidence through an appraiser].

"The contention of taxpayers that their property should not be assessed in excess of the low market prices prevailing during the business depression is unacceptable for practical reasons. It could be sustained, if at all, only on condition that the present statutory and constitutional limits on governmental debts and on the rates of taxation be repealed. Unless these limits are removed, assessors and courts will be forced, willy-nilly, to pretend that real estate is now worth more than it really is worth." (Page 510)

The position of the property owner under the Bonbright plan would seem to resemble that of the accused before a revolutionary tribunal. He must pay, "for practical reasons," taxes on his property at far above market value, and he is not to be allowed any assistance from expert counsel, i.e., the appraiser. Only if he loses his property through condemnation does he stand a chance of getting a break.

Property owners, real estate men, and appraisers are struggling for realistic and just valuations for ad valorem tax purposes. Among assessors and tax-spenders there is a tacit conspiracy to maintain assessed valuations at fictitious levels, based largely upon the traditional high valuations of an earlier era. Just as this position, being exposed, begins to become untenable, this group of economists comes to the rescue with a rationalization, on grounds of public policy, to maintain the inequality.

Moreover, Professor Bonbright hastens to lend to this cause such practical aid as lies within his power by elaborating (in 1937) to the National Association of Assessing Officers upon all the assumed difficulties involved in any effort at "basing assessed value on capitalized income," but making no reference to the injustices re-resulting from prevailing assessment methods.

To judge from the extensive reprints in the magazine *Municipal Finance*, the last two annual meetings of this Association, under the leadership of Professor Bonbright, John A. Zangerle, et al, have been largely devoted to the severest criticism (one is tempted to say to the abuse) of such real estate owners, managers, and appraisers as have attempted to protect their properties through urging any changes whatsoever in traditional assessment methods.

The Appraisal Docket

Cases, decisions, and other matters involving rulings and precedents affecting real estate and valuation

William Wilson, Editor

John C. Butler, Assistant Editor

WE EAT CROW!

WE FIND ourselves today somewhat abashedly mindful of a little couplet which proceeds:

> "My gran'ther's rule was safer'n 'tis to crow:
> Don't never prohesy—onless ye know."
> —Lowell, *Bigelow Papers.*

We have, alack, crowed in chanticleer fashion, and now we find ourselves eating our words. We refer to our remarks anent the case of *Honeyman* v. *Clark*, 278 N.Y. 467, 17 N.E. 2d 131 (1938), which concerned the constitutional challenge (impairment of contractual obligations) to § 1083-a of the New York Civil Practice Act, which limited deficiency judgments on mortgage foreclosures to the difference between the decretal indebtedness (plus costs of action and prior encumbrances, etc.) and the market value or the sale price of the property, whichever should be the higher. We were so emboldened in "The Appraisal Docket" of the April issue of the JOURNAL (Vol. VII, No. 2, pp. 165-168) as to note the pendency of an appeal in that case to the United States Supreme Court, and to predict the unconstitutionality of the statute mentioned.

Lo! We erred in our prognostication! The legislation was upheld by an undivided court in its opinion handed down April 17, 1939. *Honeyman* v. *Jacobs* (reported in C. C. H., U. S. Supreme Court Service, Opinion Volume, page 7534). The court reasoned that the mode of establishing the amount of the deficiency[1] was innocuous, constitutionally speaking, so long as the obligation to pay any deficiency (however established) was unimpaired; and that courts of equity, in the normal exercise of their powers, would in any event have "full authority to fix the terms and time of the foreclosure sale and to refuse to confirm sales upon equitable grounds where they were found to be unfair or the price bid was inadequate." Ergo, the court reasoned, what difference would it make that the legislature had done what the chancellor could do?

And, to add to our embarrassment, an intermediate New York Appellate Court has held that § 1083, as amended (on April 7, 1938),[2] is constitutionally valid even as to mortgages made prior to such amendment, in so far as was concerned the establishment of a deficiency. *Otselic Valley National Bank* v. *Dapson*, 10 N.Y.S. 588 (1939).

Our horns are now retracted. They will grow again, however.

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[1] The mode of "deficiency measurement" was formerly the difference between the decretal indebtedness and the sale price. *Heiman* v. *Bishop*, 272 N.Y. 83, 4 N.E. 2d 944 (1936).

[2] §1083, as amended, incorporates in permanent form the temporary legislation effected by §§1083-a and 1083-b.

CONDEMNATION AND DUE PROCESS OF LAW

An interesting case is that presented by *Southern Indiana Gas & Electric Co.* v. *City of Boonville,* ——— Ind. ———, 20 N.E. 2d 648 (1939). That concerned a condemnation proceeding brought by the city of Boonville to acquire the property of a public utility. The statutory procedure applicable to the case prescribed that, upon the failure of the municipal council and the utility to agree as to valuation, such was to be established by "three disinterested freeholders, to be appointed by the court." The utility claimed that this procedure "does violence to the due process clause of the Federal Constitution, because it arbitrarily authorizes the appraisement to be made by persons without the necessary qualifications, inasmuch as the valuation of such properties requires persons of technical skill and training in the engineering, administration and financing of public utilities." The court held that since any party aggrieved by such appraisement may, by filing written exceptions thereto, try the issue in court (with right of appeal), the statutory method affords due process. It said (page 651):

> "In determining if the requirements of due process are met, the remedies provided must be considered as a whole, and it is not proper to apply the tests to the isolated parts relating only to the initial appraisement. The provisions that the three appraisers shall be disinterested freeholders are minimum qualifications, and we would not be warranted in assuming, in the absence of some showing of fact, that the court had appointed, or might appoint, persons to discharge that duty who were otherwise unqualified or incompetent. It would be a rash assumption to say, as has been suggested, that there are not in any county in this state three disinterested freeholders possessing the requisite knowledge and judgment to qualify them to fairly appraise utility properties. The guaranty of due process should not be carried so far as to preclude the possibility of there being some tribunal competent to determine the matters involved. When a statute, such as we have, makes provision for a determination of value by three disinterested freeholders of the county, followed by a trial of the issue by a court of general jurisdiction, at the election of the party aggrieved, with the right of ultimate appeal to the highest court of the state, the requirements for due process of law are discharged."

We are of the opinion that this is a correct application of legal principles. But, without the right to submit to court the exceptions to the freeholders' appraisement, such method, we feel, would not afford due process. The practical application of our democratic thesis of equality of man would particularly fail in the appraisement, as here, of such a complicated bundle of property rights as are embraced within the ownership of a public utility. Cf. *Lone Star Gas Co.* v. *City of Ft. Worth,* 128 Tex. 392, 98 S.W. 2d 799 (1936). Such a method would perhaps be constitutionally valid if the freeholders were to sit as a court, to hear the evidence of expert witnesses offered by both sides, and to draw their conclusions therefrom. Except for the fact that, instead of freeholders, district judges were selected by the Supreme Court to act as a board of appraisement, such a method was upheld in Nebraska. *City of Mitchell* v. *Western Public Service Co.,* 124 Neb. 248, 246 N.W. 484 (1933) [appeal dismissed for want of a final judgment, 289 U.S. 709 (1933)], wherein the court said that, in the absence of a constitutional provision to the contrary, due process of law does not require a juratorial assessment of damages.

The case of *Lone Star Gas Co.* v. *City of Ft. Worth, op. cit., supra,* was one for injunction against the named city to restrain it from condemning plaintiff's utility plant. The ground for equitable jurisdiction was alleged to be that the condemnation statutes under which the city was proceeding did not specify an ade-

quate mode of procedure in so far as the valuation of public utility properties was concerned and that the application of such statutory procedure was void in the instant case. The court recognized the principle that "proceedings under a statute giving the right of eminent domain, but providing no compensation for the property taken, are void and may be enjoined. Exactly the same situation is present, so we think, when no adequate and appropriate procedure is established providing the mode and manner of ascertaining the amount of compensation." The court held such principle applicable to the case before it, and therefore issued the injunction, since:

> "We call attention to these things for the purpose of demonstrating that the provisions of our statute, providing for appointment of three disinterested freeholders, 'when real estate is desired for public use,' and giving very meager directions for assessing the 'actual damages that will accrue to the owner,' are wholly inappropriate, inapplicable and insufficient as a means of assessing the compensation to be paid a public utility for the taking of its business and plant as a going concern." (Page 804)

Equally applicable, we submit, is the Texas rule to other complicated valuations such as would arise in the field of real estate appraisement, e.g., in the valuation of leaseholds of business property.

MODIFICATIONS OF BUILDING RESTRICTIONS

THE case of *Fidelity Title and Trust Co.* v. *Lomas and Nettleton Co.*, ——— Conn. ———, 5 A. 2d 700 (1939) involved an application for declaratory judgment by the Fidelity Tiltle and Trust Company and others for a modification of a certain building restriction on lots held by the applicant plaintiffs. Plaintiffs (or their predecessors in title) had subdivided a parcel of land in Stamford, Connecticut, into a development of fifty-four lots, of which plaintiffs still held thirteen and one half. The other lots had been sold (to the defendants to the action) prior to 1932; six of such lots were improved. The deeds contained restrictive covenants including one limiting the first cost of any house built on lots fronting on Sound View Avenue to a minimum of $12,500; and on any of the other lots, $9,000. Similar minima were established with reference to garages; one-car garages to cost not less than $500 and two-car garages, not less than $750.

Plaintiffs alleged that by virtue of an "economic depression of national magnitude," the type and first cost of "buildings now erected by persons of a social and financial status similar to the type of persons to whom the original developers contemplated selling" have changed. Plaintiff stated that comparable (to $12,500) houses may now be built for $9,000, and comparable (to $9,000) houses, for $6,000. (Similarly, with the garages.) Plaintiff asked for such modifications in the building restrictions. This was denied, the court saying:

> "The gist of the factual allegations of the complaint is that economic changes have so reduced the first costs of building that houses and garages of comparable value and quality can now be built for about two-thirds of the amount they would have cost at the time the restrictions were imposed. . . . . The purpose of prescribing minimum building costs was to set a certain standard of quality for the development, and is the usual and practical method of attaining that object notwithstanding the frequent fluctuations which characterize such costs. Although the depreciation relied upon may be unusual in extent and duration, there is and cannot be assurance of permanence or against the recurrence of conditions which would again render the standard approximate as appropriate as when it was first set up and present economic conditions cannot be truly regarded as having destroyed the objects of the development or so permanently impaired them as to warrant, in accordance with the principles above expounded, the modification prayed for." (Page 702)

A court of equity will deny the enforcement of building restrictions where a change in circumstances has defeated the purpose of such restrictions. But the change in circumstances must be so radical as to be beyond peradventure. The fact that the abolition of the restriction would be of no particular detriment to the opponents and would result in the enhancement in value of the proponents' property (due to permitted change in use, as from residential to commercial) will not warrant its judicial abrogation. *Bickell* v. *Maraio*, 117 Conn. 176, 167 A. 722 (1933). There the court had before it an action to quiet title and for a declaratory judgment relieving the plaintiffs' properties of a restriction prohibiting a business use. The tract of land in question was known as Breezemont Park, a residential development (originated in 1906) located on the Boston Post Road about two and one half miles east of Greenwich, Connecticut. The Post Road was hard surfaced in 1912 and made wide enough for two lanes of traffic with a trolley track on the northern side. In 1923 the road was cemented and widened into a four-lane highway, and the trolley tracks removed. Since such time, on either side of the development, there have sprung up those concomitants indigenous to the American traveller; restaurants, gasoline stations, garages, and, yea, even dog kennels. The court denied the application for removal of the restriction, saying (pages 724-725):

"The plaintiffs' case is based primarily upon the effect of the increased automobile traffic on the post road upon which their properties abut. The court has found that as a result of the greatly increased traffic the character of the post road has so changed that it renders undesirable for residential purposes plaintiffs' properties immediately fronting upon it. It has also found that their properties, if made available for business uses, would be worth greatly in excess of their present value, restricted as they are to residential uses. The post road is a main artery of travel, and it is a matter of common knowledge that the through traffic upon it, especially that of the trucks which pass through during the night, has rendered property along its entire length less desirable for residential purposes and in many instances more valuable for the kinds of business which serve such traffic, such as the garages, gasoline stations, and restaurants which have grown up in the neighborhood of this development. When Breezemont Park was laid out, the post road, then known as Connecticut turnpike, ran through it, carrying such through traffic as then existed and the additional burden of a street railway line. The latter has been removed, but the through traffic has increased as it has upon all main arteries of travel. There has been no change in the character of the road except that with the passage of the years the traffic has increased as was to be expected. The properties abutting upon the road have become less desirable for residential purposes and more valuable for business uses, but the increase in the traffic upon the post road has not affected such a complete change in the character of this restricted area as to defeat the objects and purposes of the restrictive covenant so that they are no longer effective."

* * * *

"The fact that a change in the use of the plaintiffs' properties from a residential to a business one would not materially affect the value of the properties of the defendants would not justify a removal of the restrictions, since the right to their enforcement is not dependent upon the existence of damages as a result of their removal. . . . . This of course is upon the assumption that the beneficial value of the restrictions upon the defendants' properties has not already been destroyed by such a radical change in the character of the restricted area that they can no longer furnish the protection afforded when they were imposed. Where such is the case, with the result that the enforcement of the restrictions will be burdensome to the land to which they are attached and of no value to the dominant tenements, equity will ordinarily deny injunctive relief. Such is not the situation presented by this record. It does not appear that the essential character of Breezemont Park as a residential development has been affected by the business which has grown up along the post road beyond its limits, or by the increase in the traffic upon the post road itself."

TAXATION AND ASSESSED VALUATION

WE are presented with a judicial condonation of inequality in assessments of real estate for taxation so frank and outspoken as to leave us momentarily breathless. Our theoretical equality in taxation, of which the courts have been prone to prate, is now cast aside as a mirage of Never Never Land.

New York's Tax Law (§ 293) empowers the court to correct an unequal assessment so as to "make it conform to the valuations and assessments of other property upon the same roll and secure equality of assessment." It also provides: "Upon the hearing the parties to the proceeding may mutually agree on parcels of real estate to be valued. . . . . But in case the parties fail to agree on a selection of parcels to be valued . . . . then upon application of either party the court or referee shall . . . . select the parcels that shall be valued without reference to their assessed values, and both parties shall be limited in their proof on the trial to . . . . the parcels so selected, except that evidence as to actual sales of real property within the tax district that occurred during the year in which the assessment under review was made may be given by either party."

The case of *People* v. *Lewis*, 280 N.Y. 184, 20 N.E. 2d 386 (1939) concerned the complaint of one Jessie Chalmers Hagy that her property (37 North Pearl Street, Albany, New York) was unequally assessed in that it had been made at a higher proportionate valuation than the assessment of other property on the same roll by the same officers. The parties were agreed that the full value of plaintiff's property was $160,000. The question concerned only the ratio of assessed to full valuation.

In accordance with the statutory procedure above mentioned, the referee selected from lists submitted by each party the following twelve parcels, together with their assessment and full values:

Property	Assessment	Full Value	Approximate Ratio
241 South Pearl St.	$ 2,000.00	$ 3,000.00	66-2/3%
600 South Pearl St.	2,000.00	6,000.00	33-1/3%
120 Hudson Ave.	20,000.00	35,000.00	57-1/7%
218 Western Ave.	26,000.00	60,000.00	43-1/3%
178 Morton Ave.	6,500.00	9,000.00	72-1/5%
210 Laudonville Rd.	10,000.00	25,000.00	40%
41 Catherine St.	2,500.00	2,769.30	90-1/4%
453 Myrtle Ave.	10,100.00	8,790.00	114-9/10%
9 Lawnbridge Ave.	10,000.00	9,000.00	111-1/10%
83 Columbia St.	8,000.00	6,988.00	114-1/2%
485 Myrtle Ave.	10,000.00	8,980.00	111-2/3%
30 Market St.	8,500	8,122.50	104-2/3%
	$115,600.00	$182,649.80	Av. 79.98%

The referee divided the total of assessed valuations ($115,600) by the total of full valuations ($182,649.80) to find the percentage of full value at which real property was assessed in the city. This resulted in a figure of approximately 63.3 per cent; accordingly, plaintiff's property was so assessed. The Commissioner of Assessments of the city of Albany, New York, contended, however, that the ratio should be determined by an average rate of assessment: in this case, approximately 80 per cent. The court adopted the referee's selection of the 63.3 per cent factor, saying:

> "The equalizing method used by the courts below may perchance give effect to lopsidedness of the sort pointed out by Mr. Justice Foster. But this possibility seems to us to be so remote as to be negligible in the ordinary case. The statute does not constrain either litigant to accept a selection of parcels loaded against his interests. When the parties agree on the parcels to be valued it is to be presumed that inordinate diversities have been excluded. In the absence of such agreement the selection is made by the court or by the referee, and then (unless the contrary be shown) it is to be presumed that judicial fairness is a guaranty that the parcels chosen also fairly exhibit a cross-section of the situation that exists throughout a tax district. Thus the idea of the statute appears to be that a sufficiently approximate arithmetical mean can be established by pooling a number of parcels (so selected) and comparing the aggregate of their assessed valuations with the aggregate of their full values. Apparently this was the view of the courts below. *We cannot say that*

such a process is inadequate for practical attainment of the rough equality which is all that has heretofore been possible under any system of taxation. [Italics, the authors'.] Nor is the claimed superiority of the city's average-rate-of-assessment formula necessarily proved by mere multiple comparison of single parcels with other single parcels. As we all know, there are in almost every community peculiar standards of value indigenous to particular locations." (Page 387)

We are flabbergasted. On the face of the record there appears to be such an inequality in assessment (running from 33-1/3 per cent to approximately 115 per cent) as to invalidate the entire Albany assessment! Practical attainment of the rough equality! Tsk!

PUBLIC USE IN CONDEMNATION

WE have had occasion before to remark about the judicial interpretation which has been placed by some courts upon the phrase "public use" as such is employed in the constitutional limitation that private property shall not be taken for public use without just compensation.[3] We have noted that there have arisen two schools of thought upon the subject: (1) that such phrase is to be taken literally, *viz.*, a use by the public; (2) that such is to be given the meaning of public benefit or public advantage. This latter interpretation is given increasing credence by recent judicial pronouncements. But, as one text writer has said, such interpretation is dangerous for its limitations are apt to be too nebulous to effect a constitutional boundary.[4]

Three applications of this phrase to concrete situations have recently been considered by our Federal courts in connection with condemnation proceedings instituted by the Federal government. The first concerned the acquisition of an historic site in St. Louis, Missouri, the total cost of the project to be $9,000,000. The court held that the acquisition and preservation of historic sites is a proper public use; condemnation was therefore proper. *Barnidge* v. *United States*, 101 F. 2d 295 (C.C.A. 8th, 1939). This is an instance which would, we believe, properly fall within the limits imposed by the stricter interpretation and is therefore *legally* justifiable, however grave may be the doubts of some as to its *practicality*. The second case concerned the acquisition by the Federal government of a "demonstrational recreational park." By analogy, since public parks are a proper public use, such a "demonstrational recreational park" was held to be an appropriate subject, legally speaking, of condemnation. *United States* v. *Dieckmann*, 101 F. 2d 421 (C.C.A. 7th, 1939). With this also there can be no legal quarrel. The third case, however, presents a less precedented set of facts. That involved the condemnation by the Federal government of certain lands to be embraced in a project of 35,000 contiguous acres surrounding Crab Orchard Creek. The public reasons assigned by the government for the undertaking were "to provide for the reforestation and forestation of said land; to prevent soil erosion; to aid in flood control; to prevent forest fires; provide for the relief of unemployment by the erection and construction thereon and in connection therewith of useful public works, including truck trails, bridges, dams, ditches and other public works necessary to said project." The project was established on a nonnavigable stream; it was conceded, in so far as flood control was concerned, that the benefits therefrom would be local in nature. *United States* v. *Eighty Acres of Land in Williamson County, Illinois*, 26 F. Supp. 315

[3] "The Appraisal Docket," *The Journal of the American Institute of Real Estate Appraisers* (Vol. VI, No. 4), pp. 360-361.

[4] Lewis, *Eminent Domain* (3rd ed., 1909).

(D.C., E.D. Ill., 1939). The court held that flood control and prevention of soil erosion on navigable streams are properly embraced within the public use; and that reforestation, forestation, and prevention of forest fires were correctly matters of national concern. That the instant case involved a nonnavigable stream was deemed immaterial.

> "It seems quite clear that though the benefits and effects of the Crab Orchard Creek Project may not actually be felt outside the State of Illinois, its uses, as alleged in the bill of complaint, are not only public uses but have long been recognized and applied as such by federal legislation. Its local character is no more pronounced than that of a local national forest, a local national park, or a local agricultural or scientific experiment station, established to serve the general welfare. Like each of the foregoing examples, the Crab Orchard Creek Project, while localized in its immediate benefits and effects upon natural conditions, is being established for no special class or division or number of persons but for all the people. Each of the uses specified is a part of a national effort to combat an evil or promote an activity that affects the general welfare to an extent that has moved the Congress, as shown by the various Acts pointed out above, to establish a national program for each. Thus, the project here in question becomes an integral part of a national movement affecting the general welfare of the entire people." (Page 321)

However, it may be pointed out that conservation of our entire natural resources and government ownership of our national industries could by the same line of reasoning as is employed in the last cited case be the proper (constitutionally speaking) subject of condemnation. For what difference in principle is there between prevention of soil erosion and prevention of an uneconomic production of goods?

TAX IMMUNITY

THIS title will doubtless stir up pleasant dreams of Valhalla in the imaginations of those of us who are harried by the problems of taxation. Then you may be surprised to hear of an actual instance of tax immunity! Alas, the beneficiary is not as you and we: it is the Federal government.

The Federal constitution provides by Article IV, §3, Clause 2:

> "The congress shall have power to dispose of, and make all needful rules and regulations respecting the territory or other property belonging to the United States; and nothing in this constitution shall be so construed as to prejudice any claims of the United States, or of any particular state."

This provision received interpretation in the case of *City of Springfield* v. *United States*, 99 F. 2d 860 (C.C.A. 1st, 1938). There the city of Springfield, Massachusetts, attempted to assess and collect a real estate tax for the year 1937 upon certain property owned by the Federal government. Such property had been used as a post office until 1933, when (lo and behold!) a new post office was built and the old site abandoned. Since 1933 the government had, pending attempts to sell the property, leased it (with a month's notice cancellation privilege) for use as a bus terminal. The city of Springfield became tired of waiting for the sale to private parties; the present suit was to enjoin the tax sale of the property by the city. The injunction was granted, the court relying upon the above quoted constitutional provision. In the course of the decision, the court said:

> "Since a state or any subdivision thereof has no right to tax property of the United States used by it in the performance of any of its constitutional functions, it follows, we think, that it cannot tax property of the United States acquired for a site for a post office, which, having been abandoned for that purpose, is held by the government pending a sale of the property." (Page 863)

We sigh! Were we poor mortals a government!

What to Read

Comments on recent surveys, books, and articles of interest to real estate appraisers

C. M. Jones, Editor — Librarian, American Institute of Real Estate Appraisers

BOOK REVIEWS

Ratcliff, Richard U. THE PROBLEM OF RETAIL SITE SELECTION. Michigan Business Studies, Vol. IX, No. 1. *Ann Arbor, Michigan: University of Michigan, 1939, 93 pp., $1.00.*

THIS monograph by Richard U. Ratcliff, Assistant Professor of Real Estate Management at the University of Michigan, is a study of the basic factors involved in the selection of store sites in large cities. It explores that aspect of city development and structure which is concerned with commercial utilization in general and with the retail pattern in particular. A chapter is devoted to an analysis of consumer-buying behavior and its effect upon the retail structure, and another covers current practices of large chains in the selection of sites. The contribution modestly claimed for the study is "a clarification of those causative factors which have given form to the retail structure in our cities."

The author disclaims the discovery of any formula for testing sites for particular retail uses, but suggests the probability that elucidation of the subject may prove of practical aid thereto.

Included are fifteen tables and seven charts presenting analyses of various studies of store centers, such as the frequency of occurrence of various kinds of businesses in blocks containing a given type, a special study of Philadelphia stores in 1935, and a bibliography.

It is a scholarly work by an economist who knows how to write.

FREDERIC VIAUX

Boston, Massachusetts

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A FINE EXAMPLE OF STATISTICAL DATA presented in graphic form is Howard Whipple Green's *Cleveland Market Data Handbook.* Charts and tables give information on population, cost of living, employment and unemployment, pig-iron production, telephones, automobile sales and registrations, car loadings and other transportation data, postal receipts, bank deposits and other financial data, new construction, mortgage finance, relief expenditures, public finance, and taxation. Figures are given from 1900 through 1938. This is exactly the type of information on his city which every appraiser should have at his fingertips in order to place properly his opinion of value in its right relationship to the business activity of his city.

The *Handbook* is but one part of the more extensive publications resulting from the continuous research conducted by the Real Property Inventory of Metropolitan Cleveland. Price $1.00.

THE HOTEL BUSINESS
is a particular field all its own, requiring a specialized knowledge of practices and trends quite distinct from other fields of business activity. The best statistical review we have seen on the subject in a long time is *Trends in the Hotel Business*, published by Harris, Kerr, Forster & Company, accountants and auditors specializing in hotels. This fifty-two page booklet includes information on transient hotels, residential hotels, and resort hotels. Plenty of figures on occupancy, income, and operations are given, and the scope is country-wide. Price: Free on request.

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THE PROBLEMS OF THE USED HOUSE
is the title of a thirty-two-page planographed pamphlet edited by Richard U. Ratcliff and published by the Bureau of Business Research, School of Business Administration, University of Michigan, as Number 5 in a series of Michigan Business Papers, and dated May, 1939. This publication summarizes the proceedings of the annual Educational Conference held at Ann Arbor in the spring of this year under the joint auspices of the Michigan Real Estate Association and the University. The pamphlet follows the sessions in arrangement. It is divided into five subtopics: The Competition of Rental Housing; The Threat of Technological Progress in Housing; The Policies of Institutional Owners; Problems of Financing; and Merchandising the Old House. Price $1.00.

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THE TORRENS SYSTEM OF TITLE REGISTRATION
comes to the front again with the publication of *Registration of the Title to Land in the State of New York* by Richard R. Powell, Professor of Law at Columbia University. No up-to-date books on this subject have been issued for many years, and what material is available is biased and of questionable value. This project attempts to be impartial, exhaustive, and authoritative. Carnegie money financed the months of research which went into the extensive collection of charts and data, painstakingly assembled and carefully annotated and indexed. Price $3.50.

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HOT OFF THE PRESS
is *Residential Cost Manual* published by the Home Builders and Land Developers Division of The Chicago Real Estate Board. The manual contains construction costs of all standard residential types found in the Chicago area. Twenty-two different structures are illustrated, ranging from cheap frame cottages to modern four-apartment buildings. Especially helpful is a simple explanation of how to determine the cubic content of attics under various types of roofs. Price $3.00.

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AN ASSORTMENT OF INTERESTING STUDIES
has appeared in recent months. Many of these should be added to the well-read appraiser's fund of knowledge. Charles P. Glover, a member of the American Institute of Real Estate Appraisers, has published in mimeographed form *Glover's Assessors' Manual*, which "sets up the principles and mechanics of assessing by Income or Use Value as the basic approach in determining assessed valuation of all types of property." Mr. Glover attempts to transplant the system of assessing for taxation used in England to this country with certain modifications. This preliminary study will be rewritten and clarified by additional work, and another edition will be brought out at a later date. Price: $2.00.

NEW ARTICLES

FORTUNE

The entire issue is devoted to New York City and is packed full of valuable information and statistics about the largest metropolis in the United States. The issue is divided into four parts: "The People," "They Govern Themselves," "They Earn a Living," and "What Is This City?" Under these broad headings are interesting sections, such as "The Melting Pot," "The Metropolitanites," "LaGuardia's New York," "Nineteen Thousand Cops," "X-Ray of a Skyscraper," "America Comes to Seventh Avenue," "Under the Asphalt," "Brooklyn and Queens," and several others just as fascinating. Appraisers will like the four-page map which details the distribution of living and working population, the age, type, and rental of buildings, the use of land, existing streets, etc. Of particular interest is the section entitled "$21,000,000,000 of Real Estate." In tracing their real estate history, New Yorkers have figured that there have been four real estate cycles since 1875. The boom that ended in 1930-31 was the biggest and most fabulous of all. Recovery has been slow, and it is believed that the future of real estate lies in a "new rationalization of capital structure" and "a recognition that property is worth what it will earn." The information on rents, assessed values, leases, ownership, etc. is useful and well worth the time it takes to read it. *(July, 1939.)*

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SKYSCRAPER MANAGEMENT

"Continued Upward Trend Revealed in Rental Survey" by E. A. Hart

Once more the Committee on Renting of the National Association of Building Owners and Managers has completed its national survey on rental conditions. This survey, the fourteenth of its kind, shows an average office-space occupancy of 82.23 per cent for the United States and Canada, a gain of 0.18 per cent over the figures of last October. (The ratio for January 1, 1934, was 72.43 per cent.) Represented in the summarization are 140 cities, 2,378 buildings, and 207,314,596 out of a possible 365,000,000 square feet of rental office space. In addition to comprehensive reports by cities, there is a tabulation by regions, a table showing expansion and contraction of space by cities, a table of comparative vacancies over a ten-year period grouped by cities of approximately the same population, and a chronological comparison of vacancy from October 1, 1924, to May 1 of this year. The southern region leads with an occupancy of 88.08 per cent. *(June, 1939, p. 6.)*

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NATIONAL REAL ESTATE JOURNAL

"The Effect of European War on the Real Estate Market" by Ralph E. Badger

This timely study constitutes an address by the author before the Detroit Real Estate Board. In analyzing the problem he first examines the effects of a war upon our entire economic structure. His belief is that if we should enter a major European war, the forces of inflation would outweigh those of deflation. "The first effects of this on the real estate market would be a sharp curtailment in all new construction, especially in respect to projects not directly connected with supplying military needs. Rents would rise, especially in industrial areas; the prices of real estate would advance, and most types of agricultural land would advance in value." He goes on to point out differences in present conditions as compared with those preceding the World War. *(June, 1939, p. 52.)*

NATIONAL REAL ESTATE JOURNAL

"Pratical Use of the New Appraisal Techniques" by Boyd T. Barnard, M.A.I.

With our new appraisal technique, let us attempt to co-ordinate those two vital fundamentals—theory and practice. The gist of the article is found in the conclusion, ". . . . that the value of theory lies in its practical application in the hands of trained experienced people. Let us give more recognition and consideration to the practical, experienced appraiser who has stored in his mind a wealth of experience, of general information and by reason of that may have a better grasp, a better intuition, understanding and knowledge of a situation, and better able to judge when and where the frog will jump." *(July, 1939, p. 32.)*

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BUILDING SUPPLY NEWS

" 'Rebuilding for Beauty' Tested by a Philadelphia Realtor" by Arthur W. Binns

Mr. Binns's specialty is purchasing rundown properties in the midst of Philadelphia's slums and modernizing them at a profit. He is demonstrating that private capital can remodel these white elephants at far less expense than the government can demolish and rebuild them. Photographs illustrate what Mr. Binns has done along these lines. The June article is the first of three installments. The July issue of the magazine contains a further analysis of the costs of renovating these slum properties. The story of the Tenant's Housing Foundation, organized to bring good housing within reach of $1,000-a-year incomes, will be told in a later issue. *(June, 1939, p. 45.)*

THE REVIEW OF THE SOCIETY OF RESIDENTIAL APPRAISERS

"Decrement as an Appraisal Problem" by A. N. Gitterman

The author contends that, while we are more or less familiar with the meaning of increment, nothing has been written as yet concerning the definition of the term *decrement.* While the decrement rating from normal lot value is the personal opinion of the appraiser, it should be supported by provable data. The author defines decrement as *"the difference between normal and diminished land utility,* caused by certain influences." Decrement applies only to the land. Some of the conditions which cause it are discussed. "In some cases described before, a piece of land was first not subject to disadvantages resulting in decrement, but changes later occurred." *(June, 1939, p. 9.)*

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AMERICAN BUILDING ASSOCIATION NEWS

"Future of Real Estate" by Myers Y. Cooper

"I am an optimist as to the future of America and I am a great optimist when it comes to the ownership of real estate," said the former Governor of Ohio in an address to the Ohio Real Estate Association convention at Dayton recently. Mr. Cooper contends that prosperity in the building industry means prosperity for the nation, and it is his conviction that Realtors and home builders can stimulate interest in home ownership more than anyone else. It is also his belief that private enterprise can meet the requirement for every housing need as well as co-operate with government slum clearance. *(July, 1939, p. 311.)*

NEW M. A. I.s

R. DOUGLAS BURROWS, LOS ANGELES, CALIF.

Born, Cincinnati, Ohio, February, 1897; Chief Appraiser, Security-First National Bank of Los Angeles; affiliated member, Beverly Hills Realty Board; professional territory covers metropolitan Los Angeles; attended Cornell University, 1915, Princeton University, 1918-19; studied real estate appraising and related subjects at University of Southern California and University of California at Los Angeles; lecturer; supervisor of course in building construction inspection at Wiggins Trade School; sixteen years' experience in appraising, including the valuation of all types of urban real estate; qualified in court as an expert on the value of real estate.

PERCY P. ANDERSON, BRIDGEPORT, CONN.

Born, Bridgeport, Connecticut; head of own general real estate business; appraiser for Home Owners' Loan Corporation and Federal Housing Administration; active member, Bridgeport Real Estate Board; professional territory covers southern Connecticut; twenty-five years' experience in appraising real estate, including the valuation of residences, apartments, farms, and commercial property; qualified in court as an expert on the value of real esate.

H. CLIFFORD BANGS, WASHINGTON, D. C.

Born, Washington, D. C., January, 1883; head of own real estate business; professional territory covers District of Columbia and adjacent territory; Director, National Association of Real Estate Boards; member, Finance Committee and Rates, Rules, and Customs Committee, National Association of Real Estate Boards; member, Executive Committee, Brokers Division, National Association of Real Estate Boards; member and former Chairman, Appraisal Committee, Washington Real Estate Board; Secretary-Treasurer, Realty Factors of America, Inc.; author and lecturer; twenty years' experience in appraising real estate, including the valuation of homes, apartments, stores, office buildings, industrial property, unimproved land, and special-purpose property; licensed real estate broker in Washington, D. C.; qualified in court as an expert on the value of real estate.

A. L. MOSES, HONOLULU, T. H.

Born, Yarmouth, Nova Scotia, Canada, November, 1881; appraiser and tax specialist for Bishop Trust Company, Ltd.; appraiser by appointment for Federal Housing Administration, Reconstruction Finance Corporation, and Territory of Hawaii Bank Examiner; member, Appraisal Committee, and Chairman, Real Property Taxation Committee, Honolulu Realty Board; professional territory covers Hawaii; experienced in the appraisal of single-family homes, office buildings, store properties, and acreage.

WILLIAM BARTS, CHICAGO, ILL.

Born, Rotterdam, Holland, April, 1904; Manager, Mortgage Loan Department, Mutual Trust Life Insurance Company; professional territory covers thirteen middle western states; special member, The Chicago Real Estate Board; educated in the Chicago public schools; studied real estate law and economics at night school; completed Case-Study Courses, Real Estate Appraisal I and II, conducted by the American Institute of Real Estate Appraisers at The University of Chicago, 1938; nine years' experience in real estate appraising, including the valuation of homes, apartments, stores, office buildings, industrial property, and some special-purpose property; licensed real estate broker in the state of Illinois; experienced in the supervision of construction loans; experienced in real estate sales.

REUBEN G. CARLSON, CHICAGO, ILL.

Born, Chicago, Illinois, January, 1898; Secretary, A. T. Roner Investment Company; Fee Consultant Valuator for Federal Housing Administration; Fee Property Appraiser for Home Owners' Loan Corporation; Vice President and Chairman of the Board of Governors, Appraisers Division, The Chicago Real Estate Board; professional territory covers Cook, Lake, DuPage, and McHenry Counties in Illinois; author and lecturer; graduate, University of Illinois; attended Northwestern University Institute of Land Economics; completed Case-Study Course, Real Estate Appraisal II, and Lecture Course in Condemnation Appraising and Court Testimony, conducted by the American Institute of Real Estate Appraisers at The University of Chicago, 1938; fourteen years' experience in real estate appraising, including the valuation of homes, apartments, stores, office buildings, industrial property, farms, and special-purpose property; licensed real estate broker in the state of Illinois since 1925; fourteen years' experience in residential sales.

PHILIP V. JEWELL, EVANSTON, ILL.

Born, Chicago, Illinois, December, 1901; appraiser for Quinlan & Tyson Mortgage Corporation; member, Evanston-North Shore Real Estate Board; professional territory covers Chicago and north and west suburbs; attended Northwestern University, College of Engineering; studied real estate appraising at Northwestern University, 1936; completed Case-Study Courses, Real Estate Appraisal I, conducted by the Institute's Illinois Chapter and The Chicago Real Estate Board, 1938, and Real Estate Appraisal II, conducted by the American Institute of Real Estate Appraisers at The University of Chicago, 1938; fourteen years' experience in real estate; five years' experience in real estate appraising, including the valuation of stores, apartments, loft buildings, and special-purpose property; licensed real estate salesman in the state of Illinois, 1925-37; experienced in building construction and maintenance; five years' experience in residential sales.

F. PAUL MORGAN, BROOKLINE, MASS.

Born, Felchville, Vermont, March, 1902; First Vice President, Clifford V. Miller, Inc.; member, Boston Real Estate Exchange; professional territory covers the New England states; A.B. degree, Dartmouth College, 1923; ten years' experience in real estate appraising, including the valuation of homes, apartments, stores, and office buildings; qualified in court as an expert on the value of real estate; four years' experience in residential sales.

WALTER T. GREENE, OMAHA, NEB.

Born, Mitchell, South Dakota, May, 1897; Assistant Regional Appraiser, Home Owners' Loan Corporation; member, Omaha Real Estate Board; professional territory covers Minnesota, North Dakota, South Dakota, Iowa, Nebraska, Kansas, and Colorado; B.S. degree in Economics, University of Pennsylvania, 1921; M.B.A. degree, Harvard University Graduate School of Business Administration, 1926; completed Case-Study Course, Real Estate Appraisal I, conducted by the American Institute of Real Estate Appraisers at Columbia University, 1937, and Real Estate Appraisal II at The University of Chicago, 1936; ten years' experience in appraising all types of real property; qualified in court as an expert on the value of residential property in the state of South Dakota.

ALTON W. VAN HORN, ELIZABETH, N. J.

Born, Perth Amboy, New Jersey, July, 1907; Partner and Manager of Real Estate Department, B. B. Miller Management Company; associate member, Elizabeth Real Estate Board; professional territory covers Union County, New Jersey; studied extension course in appraising and real estate principles at Rutgers University; completed Case-Study Course, Real Estate Appraisal II, conducted by the American Institute of Real Estate Appraisers at Columbia University, 1937; eleven years' experience in the appraising of real property, including the valuation of homes, apartments, stores, office buildings, industrial property, farms, and special-purpose property; licensed real estate salesman in the state of New Jersey; qualified in court as an expert on the value of real property; experienced in building and construction; eleven years' experience in residential sales.

SAMUEL D. WALKER, KEANSBURG, N. J.

Born, Newark, New Jersey, 1893; Secretary and Treasurer, Morrisey and Walker; President, Cliffwood Beach Company; Secretary and Treasurer, Laurence Harbor, Inc.; Director, Keyport Banking Company; active member, Monmouth County Real Estate Board; professional territory covers Middlesex and Monmouth Counties, New Jersey; ten years' experience in the appraising of real estate; over twenty years' experience in general real estate field.

HARRY M. LEWIS, BROOKLYN, N. Y.

Born, New York City, March, 1888; President, Harry M. Lewis Company, Inc.; Director and member of Executive Committee, Lafayette National Bank of Brooklyn; Treasurer and Director, Lafayette Safe Deposit Company; member and former Director, Brooklyn Real Estate Board; professional territory covers Kings County and adjacent Queens County; member, Realty Advisory Committee of New York World's Fair 1939, Inc.; member, Securities and Exchange Commission; thirty years' experience in real estate appraising, including the valuation of homes, apartments, stores, office buildings, industrial property, and special-purpose property; licensed real estate broker in the state of New York; qualified in court as an expert on the value of all types of property; building and construction experience; thirty years' experience in residential sales.

JOSEPH M. MAY, BROOKLYN, N. Y.

Born, Brooklyn, New York, August, 1875; President, Joseph M. May, Inc.; President, Jomay Corporation; Vice President, Brooklyn Real Estate Exchange, Ltd.; Director, U. S. Bung Manufacturing Company; member, Brooklyn Real Estate Board; professional territory covers Greater New York; attended Polytechnic Institute; forty-one years' experience in appraising real property, including the valuation of homes, apartments, stores, office buildings, industrial property, farms, and vacant property; qualified in court as an expert on the value of real property; building and construction experience; experienced in residential sales.

ROBERT E. PATTERSON, BROOKLYN, N. Y.

Born, New York City, 1878; President, Noah Clark, Inc.; Chairman, Board of Assessors, village of Freeport, New York, for past eight years; member, Board of Assessors, Nassau County, New York, 1938-42; active member, Brooklyn Real Estate Board; professional territory covers Kings, Queens, and Nassau Counties; lecturer; thirty years' experience in appraising real property, including the valuation of homes, apartments, stores, industrial property, and lumber yards; licensed real estate broker in the state of New York since 1922; qualified in court as an expert on the value of real property; thirty-five years' experience in residential sales.

B. G. BALL, COLUMBUS, O.

Born, Columbus, Ohio, April, 1909; associated with Columbus Mutual Life Insurance Company in real estate and mortgage loan work since 1930; member, Columbus Real Estate Board; professional territory covers Ohio, Indiana, Illinois, Missouri, Kansas, and Michigan; graduate, Ohio State University; graduate of course in investments given by Franklin University; completed Case-Study Courses, Real Estate Appraisal I and II, conducted by the American Institute of Real Estate Appraisers at The University of Chicago, 1936; eight years' experience in appraising real property, including the valuation of all types of real estate except industrial and farm property.

H. A. DRYER, PORTLAND, ORE.

Born, Nokomis, Illinois, December, 1884; owner and operator of H. A. Dryer Company, specializing in real estate loans and insurance; owns and operates business and residential property and 3,500 acres of farm land; active member, Portland Realty Board; professional territory covers Oregon, Washington, and Idaho; ten years' experience in real estate appraising, including the valuation of homes, apartments, office buildings, industrial property, farms, and special-purpose property; licensed real estate broker in the state of Oregon since 1909; qualified in court as an expert on the value of real estate of all types; residential sales experience.

JAMES R. TAYLOR, PHILADELPHIA, PA.

Born, Philadelphia, Pennsylvania, September, 1903; Chief Valuator, Eastern District of Pennsylvania and State of Delaware, Federal Housing Administration; formerly associated with Taylor & Son, a general real estate business; affiliate member, Philadelphia Real Estate Board; professional territory covers thirty-eight eastern counties of Pennsylvania and the entire state of Delaware; lecturer and author; thirteen years' experience in real estate appraising; licensed real estate broker in the state of Pennsylvania, 1937-38; qualified in court as an expert on the value of residential property, 1928; experienced in real estate sales, leasing, rental collections, and financing.

BROWN C. IRWIN, HOUSTON, TEX.

Born, Evansville, Indiana, February, 1883; owner, Houston Appraisal Service; member, Houston Real Estate Board; professional territory covers Houston, San Antonio, Galveston, Port Arthur, Beaumont, and Corpus Christi, Texas; completed appraisal course given by the National Association of Real Estate Boards, 1929; assisted in appraisal courses of Houston Real Estate Board, 1932 and 1933; fifteen years' experience in appraising real property, including the valuation of homes, apartments, stores, office buildings, industrial property, farms, and special-purpose property; qualified in court as an expert on the value of real property; four years' experience in residential sales.

RALPH B. WRIGHT, SALT LAKE CITY, UT.

Born, American Fork, Utah, March, 1903; Loan and Real Estate Supervisor, The Equitable Life Assurance Society of the United States, in charge of Salt Lake City office with jurisdiction over five intermountain states; member, Salt Lake City Real Estate Board; member, Salt Lake City Chapter, American Institute of Banking; attended University of Utah, 1921-22; ten years' experience in appraising real estate, including the valuation of homes, apartments, stores, and special-purpose property.

JUNIOR MEMBERS

of the

AMERICAN INSTITUTE OF REAL ESTATE APPRAISERS

THOMAS C. HETH, OAK PARK, ILL.

Born, Chicago, Illinois, 1914; associated with Cook & Skillin, Inc.; associate member, Oak Park Real Estate Board; professional territory covers Oak Park, River Forest, Austin, and western suburbs; A.B. degree, DePauw University; completed Case-Study Courses, Real Estate Appraisal I and II, conducted by the American Institute of Real Estate Appraisers at The University of Chicago, 1936; studied Real Estate Law at Northwestern University, 1937; studied property management, Central Y.M.C.A., Chicago, 1938; two and one half years' experience in real estate appraising, including the valuation of homes, stores, and special-purpose property; licensed real estate broker in Illinois since 1937; two and one half years' experience in residential sales.

SIDNEY M. SCHWARZ, DOVER, N. J.

Born, Orange, New Jersey, December, 1912; Secretary-Treasurer, Harry L. Schwarz & Company; Secretary, Arrow Realty Company; Secretary, North Morris Holding Company; member Real Estate Board of Morris County; professional territory covers Morris County and parts of Warren, Sussex, and Passaic Counties, New Jersey; B.S. degree in Business Administration, Lehigh University; completed Case-Study Courses, Real Estate Appraisal I and II, conducted by the American Institute of Real Estate Appraisers at The University of Chicago, 1935, and Condemnation Lecture Course, 1938; studied real estate appraising, real estate law, and property management at Rutgers University, 1936; acted as Field Director for the Institute's Extension Case-Study Course at Newark, New Jersey, 1938-39; four years' experience in appraising real property, including the valuation of homes, apartments, stores, industrial property, farms, and special-purpose property; licensed real estate broker in the state of New Jersey since 1936; qualified in court as an expert on the value of residential property; four years' experience in residential sales.

W. HENRY GORSLINE, JR., ROCHESTER, N. Y.

Born, Rochester, New York, November, 1908; associated with father in a general real estate business; member, Rochester Real Estate Board; professional territory covers Monroe County, New York; B.A. degree, Dartmouth College, 1931, Civil Engineer, 1932; studied investment management at University of Rochester Extension Division; completed Case-Study Courses conducted by The Institute of Real Estate Management at The University of Chicago, 1936; completed Case-Study Courses, Real Estate Appraisal I, conducted by the American Institute of Real Estate Appraisers at Columbia University, 1937, and Real Estate Appraisal II at The University of Chicago, 1938; seven years' experience in appraising real property; licensed real estate broker in the state of New York; building and construction experience; experience in residential sales.

ROBERT L. FREE, CLEVELAND, O.

Born, Titusville, Pennsylvania, March, 1911; employed by E. L. Ostendorf; member, Cleveland Real Estate Board; professional territory covers northeastern Ohio; majored in landscape architecture at Pennsylvania State College; studied accounting at Cleveland College; completed Case-Study Course, Real Estate Appraisal II, conducted by the American Institute of Real Estate Appraisers at The University of Chicago, 1938; three years' experience in appraising real property; licensed real estate salesman.

B. K. ROSE, WARREN, O.

Born, Rankin, Illinois, March, 1897; member, Appraisal Committee, Warren Real Estate Board; professional territory covers Trumbull and Mahoning Counties, Ohio; studied architecture for one year at Carnegie Institute of Technology; one year of architectural engineering at the University of Illinois; completed the Institute's Case-Study Extension Course, Real Estate Appraisal I, conducted by the Cleveland Real Estate Board, 1938, and Case-Study Course, Real Estate Appraisal II, conducted by the American Institute of Real Estate Appraisers at The University of Chicago, 1938; three years' experience in engineering; ten years' experience in ironwork estimating and contracting; five and one half years' experience in appraising real property.

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(See pages 289 to 294, "Roster of Members," for addresses.)

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1939 OFFICERS OF LOCAL CHAPTERS

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Vice President—Franklin Hannock, 14 Park Place, Newark, N. J.
Treasurer—Percy A. Gaddis, 900 Bergen Avenue, Jersey City, N. J.
Secretary—Philip Zinman, 643 Market Street, Camden, N. J.

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President—Walter D. Shelly, 414 Greenleaf Building, Jacksonville, Fla.
Vice President—Harold V. Condict, Box 1052, Orlando, Fla.
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Treasurer—Frank R. Jewett, P. O. Box Q, Vero Beach, Fla.

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President—Albert J. Mayer, 1515 First National Bank Building, Cincinnati, O.
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Treasurer—Edward C. Heald, 20 South Broadway, Yonkers, N. Y.

SOUTHERN CALIFORNIA CHAPTER NUMBER 5

President—Thomas Francis Mason, 3218 Windsor Avenue, Los Angeles, Calif.
Vice President—John W. Salmon, 2912 South Brighton Avenue, Los Angeles, Calif.
Secretary-Treasurer—Arthur L. Layden, 437 North Windsor Boulevard, Los Angeles, Calif.

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Secretary-Treasurer—Robert S. Wayland, 10 State Street, Boston, Mass.

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WESTERN PENNSYLVANIA CHAPTER NUMBER 13

President—James W. Cree, Jr., 211 Fourth Avenue, Pittsburgh, Pa.
Vice President—E. Herbert Gilg, 6605 S. Ridgeville Street, Pittsburgh, Pa.
Executive Secretary—Richard H. Frey, William Penn Hotel, Pittsburgh, Pa.
Treasurer—Fred J. Hettling, 820 Grant Building, Pittsburgh, Pa.

OREGON CHAPTER NUMBER 14

President—Nat C. Soule, 1112 Porter Building, Portland, Ore.
First Vice President—Arthur C. Callan, 329 Oregon Building, Portland, Ore.
Second Vice President—A. G. Teepe, 3114 N. E. Sandy Boulevard, Portland, Ore.
Secretary—Donald L. Woodward, 236 S.W. Broadway, Portland, Ore.
Treasurer—W. H. Ross, 413 S.W. Stark Street, Portland, Ore.

ROSTER OF MEMBERS

JULY 1, 1939

(The figures in parentheses following the names indicate the Certificate Numbers issued and the order of election.)

ALABAMA

Birmingham
John D. Chichester (228)..... 708 Jackson Bldg.
Frank B. Clark (261).....408 N. 21st St.
Hill Ferguson (242)....Board of Equalization, Court House
Harold M. Henderson (215).....2115 First Ave.

ARIZONA

Phoenix
Leonard M. Cowley (523).....320 Professional Bldg.

ARKANSAS

Little Rock
Lawrence Witherspoon (531).....Box 1031

CALIFORNIA

Berkeley
Clayton B. Turner (630).....1430 LeRoy Ave.

Glendale
Peter Hanson (11).....221 Arden Ave.

Long Beach
J. Mortimer Clark (50).....
.....Apt. 410, The St. Regis, 1030 E. Ocean Ave.
J. C. Hoffman (71).....307 F. & M. Bank Bldg.
A. G. Maspero (51).....409 Security Bldg.
T. F. Merrick (27).....Heartwell Bldg.

Los Angeles
Raymond F. Ahern (424).....1939 N. Hobart Blvd.
R. Douglas Burrows (732).....Sixth & Spring Sts.
Cloice D. Carll (410).....862 N. Edgmont St.
George H. Coffin, Jr. (216)...408 Hollywood Security Bldg.
C. Dean Glover (67).....Rm. 205, 6636 Hollywood Blvd.
W. G. Harris (430).....639 S. Spring St.
Arthur L. Layden (104).....437 N. Windsor Blvd.
Nathan Libott (84).....6253 Hollywood Blvd.
Thomas Francis Mason (151).....3218 Windsor Ave.
Stanley L. McMichael (25)..6335 Yucca at Ivar, Hollywood
Norman B. Plummer (447).....9037 W. Adams Blvd.
W. L. Poynter (651).....231 R. A. Rowan Bldg.
Thurston H. Ross (427).....3465 Knollcrest Ave.
John W. Salmon (208).....2912 S. Brighton Ave.
Charles B. Shattuck (110).....2510 S. Vermont Ave.
Ivan A. Thorson (199).....1200 Corporation Bldg.
Fred E. Vincent (212).....3440 Winslow Dr.
John A. Westrom (586).....2148 W. 83rd St.
Richard C. Willis (321).....446 S. Van Ness St.

North Hollywood
George L. Schmutz (192).....4725 Ledge Ave.

Oakland
Z. E. Bells (587).....1736 Franklin St.
F. D. Courneen (588).....1515 Financial Center Bldg.
Walter N. Gabriel (589).....1447 Franklin St.
Charles G. Gwynn (590).....420 15th St.
Harold W. Jewett (527).....Ray Bldg.
Ralph A. Knapp (591).....373 17th St.
William Bailie Kyle (592).....4514 E. 14th St.
James G. Stafford (54).....5820 Presley Way

Pasadena
Louis M. Pratt (411).....164 N. Hudson Ave.

Sacramento
Mark Cheesman (189).....2964 Govan Way
A. J. Delano (126).....809 J St.
Thomas G. Mapel (367).....1010 Eighth St.

San Diego
Lottie L. Crawford (568).....923 Seventh Ave.
Victor R. Lundy (532).....923 Seventh Ave.

San Francisco
Harold K. Crane (628).....155 Montgomery St.
Edward C. Dee (593).....168 Sutter St.
M. L. Friedlander (594).....168 Sutter St.
F. Burt Hulting (595).....111 Sutter St.
Edwin Elwood Lunstedt (596).....80 Post St.
John E. McGovern (316).....315 Montgomery St.
Dwight L. Merriman (597).....2901 Russ Bldg.
George I. Noyes (295).....821 Market St.
Fred E. Palmer (629).....41 Sutter St.
Edwin G. Wendland (342).....6626 Fulton St.
William H. Whitcomb (663).....1 Montgomery St.
J. Arthur Younger (311).....654 Market St.

San Gabriel
Frank C. Wood, Jr. (326).....420 Segovia Ave.

South Gate
Louis R. Ardouin (205).....2931 Willow Place

Whittier
D. D. Sayer, Jr. (278).....1727 W. Hadley St.

COLORADO

Denver
Arthur D. Wall (519).....813 Majestic Bldg.

CONNECTICUT

Bridgeport
Percy P. Anderson (733).....989 Main St.

Forestville
Thomas N. Ryan (554).....Pleasant Ave.

Greenwich
William MacRossie (598).....90 W. Putnam Ave.

Hartford
John A. Caulkins (631).....327 Trumbull St.
Joseph P. Kennedy (24).....720 Main St.
Aubrey Maddock (507).....50 State St.
H. Martin Tenney (534).....140 Garden St.

New Britain
William G. Dunn (535).....272 Main St.

New Haven
George B. Horan (275).....151 Court St.
William M. Hotchkiss (436).....205 Church St.
Charles T. Lincoln (265).....746 Chapel St.

Stamford
Patrick Henry Clark (599).....322 Main St.
Richard W. Fitch (231).....292 Main St.
Robert S. Hay (712).....78 W. Park Pl.

Waterbury
John M. Hutchinson (500).....195 N. Main St.

DISTRICT OF COLUMBIA

Washington
H. Clifford Bangs (734).....200 Investment Bldg.
Harold E. Doyle (82).....738 15th St., N. W.
Joseph A. Herbert, Jr. (69).....515 E. Capitol St.
A. C. Houghton (72).....909 15th St., N. W.
F. Eliot Middleton (280).....205 Investment Bldg.
Charles H. Tompkins (337).....907 16th St., N. W.
Curtis Walker (196).....5 Dupont Circle

Members in Government Service
Frederick M. Babcock (435).....F.H.A.
Fred L. Chapman (441).....F.H.A.
Warren S. Dean (313).....(H.O.L.C.) 1619 R St., N. W.
Ayers J. duBois (107).....F.H.A.
Curt C. Mack (449).....F.H.A.
Isidoro Quintana (78).....F.H.A.
John J. Savage (536).....Room 800, F.H.A. Bldg.
Jesse L. Winebrinier (600).....Room 622, F.H.A. Bldg.

FLORIDA

Fort Myers
Harry J. Wood (187).....1112 First St.

Jacksonville
V. M. Covington (48).....1316 Graham Bldg.
Louis R. Fendig (44).....23 Buckman Bldg.
J. Alvin Register (4).....114 Graham Bldg.
Bainbridge Richardson (59).....117 W. Forsyth St.
Walter D. Shelly (217).....16 Laura St.
L. K. Tucker, Jr. (150).....319 W. Forsyth St.

Lakeland
Ernest Stephen Allsopp (517).....P. O. Box 911
John L. Wright (243).....117 S. Tennessee Ave.

Miami
Hollis Bush (98).....P. O. Box 1030
Kenneth S. Keyes (115).....19 W. Flagler St.
Adrian McCune (74).....1215 Security Bldg.
D. Earl Wilson (80).....1219 Security Bldg.
W. Carroll Wilson (685).....204 First Federal Bldg.

Miami Beach
Earl Donald Keefer (695).....1035 Collins Ave.

Orlando
George F. Brass (160).....Box 2014
Harold V. Condict (161).....Box 1052
C. W. Rex (42).....Box 293
J. C. Stewart (166).....112 N. Orange Ave.

St. Petersburg
John B. Green (308).....11 Fourth St., N.
Warren P. Hunnicutt (338).....302 Central Ave.

Sarasota
Fred L. Palmer (127).....482 Main St.

Tampa
Charles P. Glover (139).....502 Maas Office Bldg.
L. F. Pallardy (632).....718 Stovall Office Bldg.

Vero Beach
Frank R. Jewett (143).....P. O. Box Q

West Palm Beach
Frank J. Anderson (223).....611 Harvey Bldg.

GEORGIA

Atlanta
Robert R. Otis (256).....15 Auburn Ave.
George P. Williams (387).....Regional Office, H.O.L.C.

TERRITORY OF HAWAII

Honolulu
Stanley Livingston (644).....89 S. King St.
A. L. Moses (740).....P. O. Box 2390
Charles J. Pietsch (417).....927 Fort St.

ILLINOIS

Chicago
Graham Aldis (365).....53 W. Jackson Blvd.
Morris B. Ashton (585).....135 S. La Salle St.
William Barts (730).....135 S. LaSalle St.
Louis B. Beardslee (405).....100 N. LaSalle St.
George Becker (518).....11 S. LaSalle St.
Kenneth Calhoun Brown (210).....110 S. Dearborn St.
Reuben G. Carlson (741).....64 W. Randolph St.
O. P. Curran, Jr. (569).....4545 Broadway
Harry S. Cutmore (194).....1411 First Nat. Bk. Bldg.
Clarence R. Dennis (664).....7 S. Dearborn St.
Leonard Downie (296).....32 W. Randolph St.
Dominick Dunn (370).....1330 Morse Ave.
Ward Farnsworth (697).....135 S. LaSalle St.
Newton C. Farr (400).....140 S. Dearborn St.
Fred F. Gardner (530).....134 S. LaSalle St.
Harold V. Glos (696).....2730 N. Clark St.
Harry Goldstine (350).....134 N. LaSalle St.
Valentine B. Habryl (698).....140 S. Dearborn St.
Arthur B. Hall (403).....407 S. Dearborn St.
John P. Hooker (52).....140 S. Dearborn St.
A. K. Hornof (173).....1411 First Nat. Bk. Bldg.
Ward T. Huston (209).....110 S. Dearborn St.
Isaac Keim (324).....2526 S. Wabash Ave.
Arthur Kruggel (341).....4931 Broadway
Walter R. Kuehnle (124).....140 S. Dearborn St.
J. Alton Lauren (442).....22 W. Monroe St.
Mark Levy (9).....22 W. Monroe St.
Paul C. Loeber (399).....111 W. Washington St.
Ernest H. Lyons (195).....120 S. LaSalle St.
Malcolm R. MacDonald (669).....120 S. LaSalle St.
William C. McLennan (414)..6675 N. Northwest Highway
Francis E. Manierre (402).....5 S. Wabash Ave.
Orlo O. Montague (514).....1019 First Nat. Bk. Bldg.
David L. Montonna (416).....Daily News Bldg.
Donald T. Morrison (382).....100 N. LaSalle St.
William E. Mosby (297).....8032 Cottage Grove Ave.
Eugene E. Mulhern (692).....135 S. LaSalle St.
Hyde W. Perce (406).....40 N. Dearborn St.
Lester W. Porter (407).....231 S. LaSalle St.
George R. Quin (191).....36 S. State St.
Leonard James Robinson (601).....7159 Caldwell Ave.
Stanley Roe (624).....22 W. Monroe St.
Gilbert H. Scribner (401).....First Nat. Bk. Bldg.
Henry George Slavik (301).....10 S. LaSalle St.
Frank M. Stanley (633).....9117 Commercial Ave.
Percy E. Wagner (318).....F.H.A., 134 N. LaSalle St.
H. O. Walther (363).....130 S. LaSalle St.
J. Soule Warterfield (120).....8 S. Dearborn St.
Albert H. Wetten (408).....141 W. Jackson Blvd.

Evanston
Philip V. Jewell (727).....1571 Sherman Ave.

Galesburg
Ralph V. Field (168).....203 Bk. of Galesburg Bldg.

Joliet
William W. Mollan (288).....405 D'Arcy Bldg.

Litchfield
W. H. Todt (645).....114 W. Ryder St.

Peoria
James H. Finnegan (428).....415 Alliance Life Bldg.

Rockford
David Z. Field (646).....914 Ridge St.

Waukegan
Leo Dailey (388).....217 Washington St.
Oscar Soderquist (125).....22 Maple Ave.

Winnetka
William D. Burkheimer (309).....551 Hill Terrace

INDIANA

East Chicago
Leonard C. Smith (440).....4534 Indianapolis Blvd.

Hammond
George N. Becker (245).....5245 Ann Ave.
Samuel C. Ennis (203).....First Trust Bldg.

Indianapolis
George A. Kuhn (35).....706 Guaranty Bldg.
Frank B. McKibbin (96).....556 Consolidated Bldg.
John W. Roberts (448).....428 Illinois Bldg.

South Bend
Richard A. Muessel (537).....205 Income Bldg.

IOWA

Cedar Rapids
John J. Wagner (266).....408 American Trust Bldg.

Des Moines
Arthur S. Kirk (188).....900 Grand Ave.

Sioux City
Willard L. Frost (21).....Security Bank Bldg.

KANSAS

Hutchinson
J. C. McNaghten (116).....201 First Nat. Bk. Bldg.

Kansas City
Thomas Burtch (666).....2521 W. 49th Ter.

Topeka
Harold Cone (602).....1620 W. 15th St.
David Neiswanger (426).....115 W. Sixth Ave.
Ralph D. Nixon (555).....3012 Sowers Ct.

KENTUCKY

Louisville
I. Sidney Jenkins (334).....Care of Louisville Tr. Co.
Paul F. Semonin, Sr. (359).....321 Starks Bldg.

LOUISIANA

New Orleans
Max J. Derbes (560).....823 Perdido St.
E. Holland Johnson (558).....811 Perdido St.
J. Burrows Johnson (559).....339 Carondelet St.

Shreveport
T. S. Neal (224).....330 Ricou-Brewster Bldg.
R. S. Whitten (351).....210 Milam St.

MARYLAND

Baltimore
Oregon Milton Dennis (132)....211 New Amsterdam Bldg.
W. E. Ferguson (47).....100 E. Pleasant St.
Harry E. Gilbert (18).....2 E. Lexington St.
Albert C. Hofrichter (162).....2 E. Lexington St.
Harry U. Riepe, Jr. (570).....28 E. Fayette St.
Charles H. Steffey (88).....336 N. Charles St.
Carroll Wright (314).....Baltimore Trust Bldg.

MASSACHUSETTS

Boston
W. H. Ballard (41).....45 Milk St.
Philip E. Bennett (603).....40 Water St.
Arthur B. Brooks (509).....40 Central St.
Edwin Deering Brooks (510).....18 Tremont St.
Edward F. Cassell (122).....18 Tremont St.
Walter Channing (571).....50 Congress St.
George L. DeBlois (505).....11 Pemberton Sq.
Norman W. Kenny (10).....82 Devonshire St.
John C. Kiley (397).....45 Bromfield St.
Arthur N. Maddison (504).....11 Pemberton Sq.
William F. Morrissey (627).....303 City Hall
Robert C. Nordblom (336).....18 Oliver St.
George S. Parker (502).....87 Milk St.
Stephen W. Sleeper (508).....31 Milk St.
Benjamin C. Tower (687).....87 Milk St.
Robert S. Wayland (506).....10 State St.
Parker Webb (538).....24 Milk St.
Richard S. Willis (652).....87 Milk St.

Brockton
Charles H. McKenney, Jr. (423).....106 Main St.

Brookline
F. Paul Morgan (735).....1394 Beacon St.

Fall River
J. Frederick Beckett (167).....49 Purchase St.
Myer Markell (165).....56 N. Main St.
Everett N. Slade (53).....57 N. Main St.

Lowell
John C. Percival (233).....24 Merrimack St.

Somerville
Harry A. Gilbert (650).....381 Broadway

Springfield
Henry M. Clark (287).....100 Broadway
Bion T. Wheeler (339).....25 Elm St.

Worcester
Francis S. Bailey (524).....2 Foster St.
F. Everett Cole (556).....5 Pleasant St.
Charles A. Kabley (501).....340 Main St.
Maurice F. Reidy (8).....2 Foster St.

MICHIGAN

Ann Arbor
Louis C. Andrews (653).....Ann Arbor Tr. Bldg.
Edward M. Couper (654)....204 State Savings Bk. Bldg.

Detroit
Judson Bradway (392).....533 Majestic Bldg.
Matthew Carey (389).....2149 Union Guardian Bldg.
George W. Drennan (358).....617 Penobscot Bldg.
Guy S. Greene (394).....300 Lafayette Bldg.
Donald D. James (539).....700 Penobscot Bldg.
Henry N. Johnson (390).....300 Penobscot Bldg.
W. Gordon Johnstone (700).....1400 United Artists Bldg.
Albert D. MacRae (540).....Union Guardian Bldg.
Arthur A. May (686).....950 Nat. Bk. Bldg.
Alfred W. Palmer (312).....1920 Union Guardian Bldg.
Edmund T. Paterson (385).....3050 E. Grand Blvd.
Leonard P. Reaume (393).....2150 Buhl Bldg.
George C. Sexauer (395).....2150 Buhl Bldg.
William W. Tanney (434).....9061 W. Outer Dr.
Ward S. Van Deusen (665).....705 Fidelity Bldg.
Clarence S. Vaughn (422).....2103 First Nat. Bk. Bldg.
Carl S. Wells (391).....2706 Eaton Tower

Flint
Gerald F. Healy (604).....611 Genesee Bk. Bldg.

Grand Rapids
Isaac R. Blandford (234).....105 Federal Square Bldg.
Leon T. Closterhouse (247).....Central Bk.
John Garfield Emery (304).....300 Houseman Bldg.
Harry J. Fuller (235).....The Michigan Tr. Co.
Peter Hoek (713).....750 Leonard St., N. W.
Walter S. Palmer (193).....104 Federal Sq. Bldg.
Arent Van Stensel (248).....701 Peoples Nat. Bk. Bldg.
Charles H. Warden (229).920 Grand Rapids Nat. Bk. Bldg.

Jackson
Henry H. Lammers (557).....508 Dwight Bldg.

Lansing
Edward G. Hacker (291).....221½ W. Washtenaw St.

Pontiac
Paul A. Kern (134).....31 Oakland Ave.

MINNESOTA

Duluth
Richard W. Northrup (379).....600 Torrey Bldg.

Minneapolis
Norman L. Newhall (32).....519 Marquette Ave.
Edwin L. Somerville (30).....519 Metropolitan Bk. Bldg.
J. Frederick Sutherland (331).....Suite 450, Baker Bldg.

MISSISSIPPI

Jackson
J. O. Manning (299).....3012 N. State St.

MISSOURI

Clayton
Gunther Meier (319).....24 N. Meramec Ave.

Joplin
Rolla E. Stephens (264).....711 Virginia Ave.

Kansas City
George M. Bliss (360).....17 E. Tenth St.
C. F. Curry (345).....921 Baltimore Ave.
Ward C. Gifford (667).....709 Nat. Fidelity Life Bldg.
Herbert B. Patt (553).....417 R. A. Long Bldg.
E. F. Pierson (289).....311 Commerce Bldg.

St. Louis
W. C. Bernard (91).....412 City Hall
William W. Butts (93).....410 Wainwright Bldg.
Herbert O. Byrd (302).....818 Chestnut St.
Charles J. Daly (94).....
.....211 Old Custom House Bldg., Eighth & Olive Sts.
Chester A. Dougherty (249).....109 N. Seventh St.
J. Gregory Driscoll (528).....1501 Locust St.
John H. Farish (201).....713 Chestnut St.
Grover Godwin (418).....1796 Arcade Bldg.
Joseph W. Hannauer (15).....811 Chestnut St.
Alfred B. Kissack (525).....915 Olive St.
Francis A. Reardon (668).....111 N. Tenth St.
Monroe H. Rodemyer (218).....109 N. Eighth St.
Edward M. Thornhill (693).....807 Chestnut St.
N. S. Wood (131).....709 Chestnut St.

NEBRASKA

Lincoln
C. C. Kimball (381).....Stuart Bldg.
W. B. Romans (669).....2841 Rathbone Rd.

Omaha
Walter T. Greene (742).....617 W.O.W. Bldg.
Lewis C. Sholes (23)..Care of County Assessor, Court House
Clinton B. Stuht (33).....Aquila Court Bldg.

NEW JERSEY

Arlington
Edgar H. Bixler (701).....100 Midland Ave.

Atlantic City
Maurice A. Kelley (325).....20 S. Tennessee Ave.

Bayonne
George Seymour (670).....9 W. Eighth St.

Butler
Frank B. Fay, Jr. (171).....Fayson Lake

Camden
Ralph D. Baker (60).....924 Broadway
William W. Chalmers (63).....645 Market St.
Abraham J. Rosenfeld (213).....300 Broadway
Leon E. Todd (340).....2623 Westfield Ave.
Philip Zinman (95).....643 Market St.

East Orange
Frank H. Taylor (6).....520 Main St.
Harry A. Taylor (108).....520 Main St.

Elizabeth
John P. Gloeckner (655).....1143 E. Jersey St.
R. Mason Kirkland (714).....125 Broad St.
John K. Leeds (99).....286 N. Broad St.
B. B. Miller (58).....281 N. Broad St.
James Rosensohn (715).....125 Broad St.
Max Tieger (112).....215 Broad St.
Alton W. Van Horn (736).....215 Broad St.

Jersey City
Percy A. Gaddis (22).....900 Bergen Ave.
D. E. C. Somers (175).....700 Bergen Ave.
R. E. Thompson (419).....Centl. R. R. of N. J. Term.

Keansburg
Samuel D. Walker (729).....1 Church St.

Linden
John Fedor (65).....540 S. Wood Ave.

Maplewood
Gilbert N. Swett (561).....Depot Plaza

Newark
Murray Apfelbaum (38).....17 William St.
John J. Berry (56).....982 Broad St.
George E. Dugan (236).....18 Washington Pl.
Charles F. Evans (572).....782 S. 19th St.
Joseph L. Feibleman (66).....17 Academy St.
George Goldstein (413).....810 Broad St.
Franklin Hannoch (49).....14 Park Pl.
Louis Herman (70).....60 Park Pl.
Charles Frederick Kraemer (366).....776 Broad St.
Rudolph Kruger (516).....11 Hill St.
John A. Linnett (85).....46 Clinton St.
E. J. Maier (75).....187 Market St.
Joseph L. Pitman (661).....60 Park Pl.
Joel L. Schlesinger (87).....31 Clinton St.
Harry J. Stevens (200).....478 Central Ave.

New Brunswick
James A. O'Connell (186).....392 George St.

Newton
A. N. Lockwood (433).....17 Main St.

Ocean City
Elmer Jackson Pearl (330).....810 Ocean Ave.

Paterson
Joseph R. Lambert (443).....20-22 Church St.

Perth Amboy
Morris Goldfarb (109).....265 Madison Ave.

Plainfield
Milton Brown (662).....131 North Ave.
William G. McDowell (446).....152 North Ave.

Ridgewood
Frederick A. Tetor (364).....1 E. Ridgewood Ave.
Samuel S. Walstrum (106).....201 E. Ridgewood Ave.

Rutherford
Charles A. Van Winkle (113).....1 & 2 Station Sq.
Theodore Van Winkle (117).....1 & 2 Station Sq.

Short Hills
William Clifford, Jr. (716).....87 Whitney Rd.

NEW MEXICO

Albuquerque
Joseph P. Deasy (377).....442 Chacoma Pl.

NEW YORK

Buffalo
A. P. Allingham (3).....158 Pearl St.
P. V. Bowen (141).....1006 Ellicott Sq.
Walter W. Cohn (81).....155 Pearl St.
Cuthbert E. Reeves (19).....Liberty Bank Bldg.

Mechanicville
Franz H. Moak (40).....37 N. Main St.

Metropolitan City of New York

Borough of Bronx
Herman A. Acker (279).....318 E. Kingsbridge Rd.
Amedeo Giordano (515).....2488 Grand Concourse
Samuel E. McRickard (292).....400 E. Fordham Rd.

Borough of Brooklyn
Stephen F. Barrera (133).....191 Joralemon St.
George Baur (170).....2609 Clarendon Rd.
Charles D. Behrens (635).....190 Montague St.
Joseph William Catharine (503).....149 Pierrepont St.
James P. Clark (550).....478 Graham Ave.
James B. Fisher (57).....160 Remsen St.
George H. Gray (17).....310 Ashland Pl.
Bernard F. Hogan (29).....451 Fifth Ave.
Arthur J. Horton (183).....6904 Fourth Ave.
George S. Horton (184).....59 Lafayette Ave.
Harry M. Lewis (743).....189 Montague St.
Alfred R. Marcks (718).....9 DeKalb Ave.
Joseph M. May (744).....189 Montague St.
Frank M. McCurdy (39).....44 Court St.
M. C. O'Brien (190).....798 Nostrand Ave.
Charles Partridge (92).....397 Flatbush Ave.
Robert E. Patterson (745).....837 Manhattan Ave.
Lewis H. Pounds (128).....32 Court St.
Milton T. VanderVeer (660).....51 Willoughby St.
R. W. Walden (89).....141 Montague St.
Alfred R. Wittich (649).....99 Pennsylvania Ave.

Borough of Manhattan
Edwin F. Armstrong (702).....485 Madison Ave.
Robert H. Armstrong (562).....485 Madison Ave.
Edward J. Crawford (373).....225 Broadway
Dalton Granger De Witt (315).....22 W. 48th St.
Sam W. Florence (206).....2700 Woolworth Bldg.
Howard Geoghegan (512).....51 Chambers St.
A. N. Gitterman (45).....45 E. 49th St.
James A. Glynn, Jr. (671).....100 E. 42nd St.
Bracton Goldstone (68).....10 E. 40th St.
George Grotz, Jr. (573).....100 E. 42nd St.
George M. Halk, Jr. (582).....742 Lexington Ave.
Frank D. Hall (159).....393 Seventh Ave.
Herbert R. Houghton (703).....12 E. 41st St.
John R. Hoyt (290).....17 E. 42nd St.
Robert Huntley (214).....67 Liberty St.
S. E. Kazdin (269).....70 Pine St.
Harry K. Keller (563).....522 Fifth Ave.
John J. McCormick (445).....51 Chambers St.
Thomas E. McSherry (636).....51 Chambers St.
Clarence C. Merritt (357).....50 E. 42nd St.
Charles W. Morrison (270).....270 Madison Ave.
James R. Murphy (437).....217 Broadway
Henry Musch, Jr. (157).....270 Broadway
Charles A. Nehring (521).....1441 St. Nicholas Ave.
Charles J. Pladwell (542).....522 Fifth Ave.
Edmund J. Port (688).....17 E. 42nd St.
George Stanley Potter (656).....270 Madison Ave.
J. Kingsley Powell (77).....34 Nassau St.
Andrew B. Rankin (625).....141 Broadway
Irving I. Rosenbaum (179).....384 Broadway
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Laurence H. Lang (694).....1101 Citizens Bldg.
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V. C. Taylor, II (153).....1930 Union Commerce Bldg.
William J. Van Aken (284).....1715 Euclid Ave.

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Preston Cooke (551).....8 E. Broad St.
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Sidney Eisenberger (704).....286 Fourth St. Arcade
Rufus Lisle (438).....704 Harries Bldg.

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J. Earl Miller (267).....Miller Bldg.

Massillon
Charles N. Hostetter (329).....716 Lincoln Way, E.

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H. S. Kissell (5).....927 First Nat. Bk. Bldg.

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George P. Crosby (252).....413 Madison Ave.
Howard Etchen (136).....725 Adams St.
Donald F. Hiett (396).....622 Jefferson Ave.
John R. Schackne (529)....507 Produce Exchange Bldg.

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Clyde A. King (432).....520 Beacon Bldg.

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W. H. Ross (707).....413 S. W. Stark St.
Nat C. Soule (679).....1112 Porter Bldg.
A. G. Teepe (690).....3114 N. E. Sandy Blvd.
Donald L. Woodward (680).....236 S. W. Broadway

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Carl G. Wright (361).....204 Marine Bk. Bldg.

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Evan J. Miller (148).....213 Locust St.

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Harry W. Butts (114).....24 E. Orange St.

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W. Raymond Evans (118).....19 N. Lansdowne Ave.

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E. Dale Fisher (520).....136 Valley St.

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Reginald W. Patton (317).....621 Travis Bldg.

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Morton G. Thalhimer (221).....1013 E. Main St.

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Kenneth E. Sarles (710).....218 Fifth St.

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Toronto
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Cyril R. De Mara (12).....372 Bay St.
Frank McLaughlin (7).....34 King St., W.

The officers of the Institute announce with sincere regret the death of the following members:

Victor J. Free, M.A.I., Cleveland, Ohio. Admitted October 23, 1935; died June 5, 1939.
Lyle B. Hornor, M.A.I., Clarksburg, West Virginia. Admitted May 29, 1935; died June 4, 1939.
I. Lincoln Seide, M.A.I., New York, New York. Admitted May 25, 1936; died July 8, 1939.
Burton Thompson, M.A.I., Elizabeth, New Jersey. Admitted July 1, 1932; died July, 1939.

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JULY 1, 1939

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